

GREEN'S Fruit Grower

"A MAGAZINE WITH A MISSION"



NOVEMBER, 1913

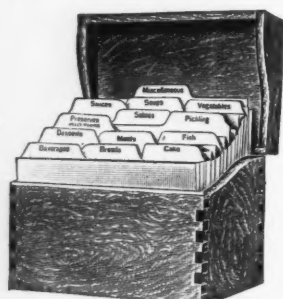
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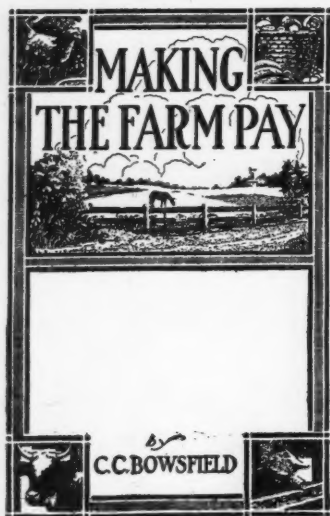
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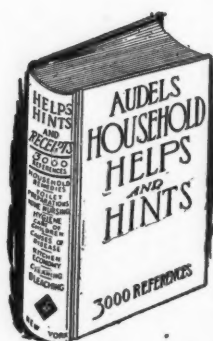
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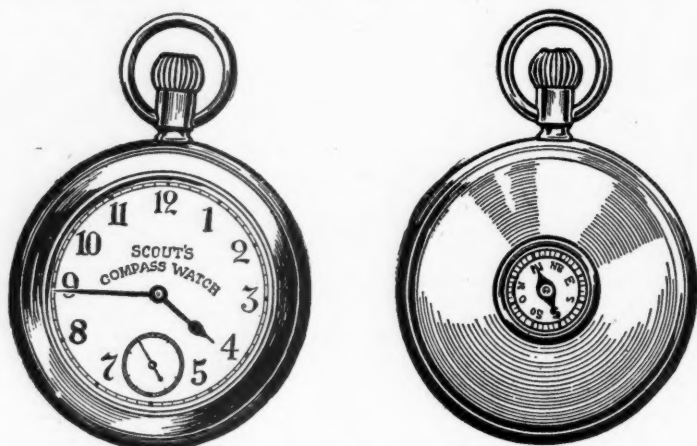
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Green's Fruit Grower, Rochester, N. Y.

GREEN'S FRUIT GROWER

A Monthly Magazine for the Fruit Growing Farmer and His Family

CHARLES A. GREEN, Editor

Volume 33

ROCHESTER, N. Y., NOVEMBER, 1913

Number 11

Loss to the Church From Men Who Have Retired From Farms.

I have noticed a disposition on the part of men who have succeeded in making a fortune on the farm to sell or lease the farm and retire to the nearest large city. In some instances these successful farmers retire to some large thriving village not far from where their success in farming has been secured.

Anyone can see that this abandonment of farm life is a great loss to the farming community. In every locality the rural church is a great force and a social center. It requires money to maintain the church, therefore when the rich farmer who has made his money from the land sells out and moves away the village church feels his loss keenly.

The successful farmer is apt to be a leading citizen, deeply interested in the village school. Often he is the trustee and the main spirit in many local affairs.

Not only is it a great loss to have successful men move away but in many instances it is not a desirable thing for the successful man himself, looking at it as he may from a purely selfish standpoint. When this man sells his farm and finds all of his property converted to cash, he is at a loss to know what to do with his money. As a rule he is not aware of the risks connected with the investment of money. Successful men will tell you that it requires even more skill to invest money safely than it does to accumulate it.

The successful retired farmer finds time hanging heavily on his hands in the city or large village to which he has removed, therefore, he is tempted by shrewd enterprising men to invest his money in this or that. Our retiring friend was undoubtedly a good farmer, having accumulated much valuable information regarding the tillage and management of farms, but he has had no experience in other lines of business, therefore he may be as lacking in experience as a child, and is often deceived or led into investments that prove disastrous.

I recollect a farmer who was far more than ordinarily successful in his farm management. He owned a beautiful farm which was in the highest state of cultivation. The buildings were modern, attractive and comfortable. Everything was in apple pie order. His farm was paid for and he had money in the bank. When this man reached the age of sixty years he sold this beautiful farm home, left his old friends and neighbors, to whom he was greatly attached, and moved to the city of Rochester, N. Y. For many years this man was pointed out as a notable example of at least one farmer who had come into the city after having turned all of his lands into ready money, who had not lost but who had made money. In fact he had nearly doubled his wealth by successful ventures in city real estate, but finally this shrewd successful man was led to invest his money largely in a mining company in the far West. Being a large stockholder he was sent West to investigate this mine, while in fact he was not capable of investigating a mine and knew no more after inspecting it than he did before. He came home with glowing accounts of the great wealth contained in this mine, thus inducing his friends to put more money into it. He invested all his money in this mine. At the age of eighty years, this man found himself penniless, without a home or a place to lay his head, the mining investment having turned out a total failure. Soon after he died broken-hearted and his wife was compelled to go from house to house selling books in order to gain a living.

A few readers may say to me, the writer, "Did you not leave your farm and move to the city?" My answer is yes, but I did not do so willingly. I had no desire to leave the farm. I was forced to do so by the growth of my business. But I did not sell my farm. Instead of this I bought more land and the past year have bought another new farm of 100 acres nearby. If my wife and I could have had our choice we would have remained on the farm where we were as happy and contented as human beings can be expected to be anywhere on earth.—C. A. Green.

Protecting Fruit Trees During Winter.

Written for Green's Fruit Grower by J. S. Underwood.

The season is now approaching when mice and rabbits will be very destructive to young fruit trees, unless some means

of protection are employed. Of course, everyone having young fruit trees should provide sufficient protection of some kind before these rodents begin their operations. When the young orchard has been properly tended during the growing season and has been given clean cultivation with, perhaps, a late seeding of some cover crop, and there is no dense growth of grass or rubbish about the trees, there is little danger of injury by mice. These rodents usually get their best work in orchards where there is plenty of such protection offered them and at the same time abundant material for nest building and the making of their winter home. But rabbits may offer trouble in almost any locality and under any conditions,

cherry seem to be attacked in the order named. Cherry trees are seldom injured.

The surest protection from mice and rabbits is afforded by individual tree protectors of one form or another. These protectors can be purchased already made, or be prepared on the farm. The most satisfactory protectors I have ever used are cottonwood veneer wrappers. I put these on with stove pipe wire, which is held in its place by a notch cut into the edge about half way up and only once hooked to fasten it, so that it may easily be removed to look for borers, aphids and other insects. These wrappers last from one to five years, are cheap, handy and effective.

Wire screen, corn stalks, heavy paper or rags may be used, but there are some disadvantages attached to their use. Too often old screen is used, and this rusts out before one expects it. Corn stalks are good as long as they last, but the strings

and must be promptly removed when the sap begins to rise in the spring.

There are paints and washes which are good to a certain extent in protecting the trees from injury. These are, fairly effective where rabbits are scarce and there is plenty of other food for them, but cannot be absolutely depended upon when there are many rabbits and a small supply of food. As there are perhaps some who wish to use a wash, however, and do not know how to make it, I will give the formula of a good one: To one gallon of sweet milk add 2 pounds flowers of sulphur, 2 pounds yellow ochre, 1 gill of turpentine, 1 dram of tincture of assa-fetida, 1 dram gum arabic and 4 eggs. This mixture must be dissolved and after standing 24 hours applied to the trees with a brush. This solution is not only of benefit in protecting the trees from mice and rabbits, but also from insects as well.

Thick whitewash, about the consistency of cream, to which a sufficient quantity of blue vitriol has been added to give it a pale blue color, is another wash which is more or less effective, and is applied with a brush. Other washes composed of soft soap and carbolic acid, pine tar and paint are sometimes used, being applied two or three times during the winter. One gallon of soft soap or one pound of hard soap and one gallon of water, and two ounces of crude carbolic acid form a wash that will give good results.

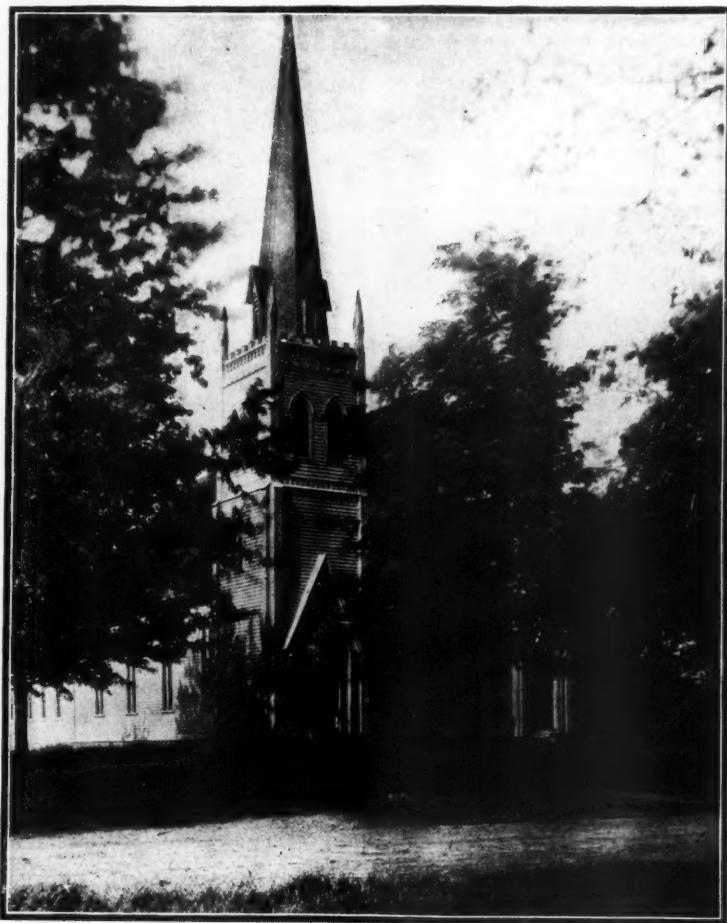
In protecting the young trees from rabbits and mice, we should also protect them from the cold, by banking up the trunk with earth. This extra covering is the same to the young trees as an extra comfort thrown over our bed on a zero night in winter. It gives a chance to straighten the trees up into their place, if the summer storms have leaned them the wrong way; holds them stiff and rigid to their place against many a winter blow, protects the roots against a hard, sudden freeze, gives good surface drainage and keeps the frost from lifting them. Many a fruit grower has been almost heart-sick to find the roots of more than half of his fruit trees exposed after a winter of thaws and freezes; and it is no small job to get them back into their places, and although they may live, they very seldom recover their full vigor.

This banking up process seems to be a very simple thing, but it is a harder task to do it properly than many might suppose. It does not require a great, broad mound of earth, but just a few shovelfuls placed right against the trees about six or eight inches high. In digging the earth a hole should not be made close to the trees and left to stand full of water which would be of more or less injury to the trees, but it should be filled up a little more than even with the surface of the ground. I find that banking up with a shovel, if it is done right, is lots better than turning a furrow to the trees with a plow.

If there are gullies in the orchard they should be filled with brush and weeds so that no more of the good soil will wash away. This trash will not only stop the washing, but it will catch and hold other soil that washes in, and gradually the gullies will be filled and become even and good soil.

No owner of an orchard who is up-to-date will kill or allow anyone else to shoot quails or other birds that dwell in the orchard during the winter. Shooting in the orchard is not a good thing for any reason, and when birds are shot we are allowing the best friends of fruit growing to be decimated. The more birds that we can induce to make homes in our orchards and on our farms the fewer pernicious insects we will have to contend with. Birds are very valuable little creatures on the farm, and especially on the fruit farm.

Editor of Green's Fruit Grower:—I am well pleased with your monthly. The growing of choice fruit and its packing has nearly been solved to perfection, but its distribution at a profit to us and fairness to the consumer is still a virgin field for a magazine of your kind. Also many of us, myself included, are planting English walnuts and almonds and advice on best varieties would be appreciated. Am also going to try the hardier figs. Many Eastern people compare our state with such states as Minnesota, Dakota, etc., forgetting that the warm Japanese ocean current makes even Alaska so warm that vegetables are raised successfully.—A. B. Lippert, Wash.



The Country Church.

In some great day the country church will find its voice and it will say:

"I stand in the fields
Where the wide earth yields
Her bounties of fruit and of grain;
Where the furrows turn
Till the plowshares burn
As they come round and round again;
Where the workers pray
With their tools all day
In the sunshine and shadow and rain.

"And bid them tell
Of crops they sell
And speak of the work they have done;
I speed every man
In his hope and plan
And follow his day with the sun;
And grasses and trees,
The birds and the bees
I know and I feel ev'ry one."
—Liberty H. Bailey in The Farmers' Review.

although they, too, can be more greatly feared where the orchard has been more or less neglected.

Trees most liable to be attacked by rodents are those that have been set out only one or two years. Damage done the first year is particularly harmful, owing to the trees not being established. They are therefore not able to supply the sap in abundance required to heal over the wound. It is particularly destructive to fall-set trees to be bitten up by rodents during the first winter, for the above reason. A large percentage of trees so gnawed die.

After a tree has been planted five or six years it is counted immune from attacks of rodents, although so much depends upon the condition of the orchard, weather, food available for rodents, variety of trees, etc., that no fixed age can be given. For the first five years after setting, protection is necessary. After that time, if injury occurs, it may be considered as rather accidental.

As to the kinds of trees oftenest attacked, apple, pear, quince, peach, plum and

with which they are tied rot, heavy winds, etc., displace the stalks, thus exposing the body of the tree. Heavy paper or rags are too often not removed in the spring, and interfere with the circulation of the sap, and in due time the very precaution taken to protect the tree interferes with its growth, and in some cases the tree dies. No form of wrapping material will keep out mice unless bound closely about the tree. Mice can either burrow under or crawl over and when once inside, the wrapper is a protection for them. Rabbits do far more damage in young orchards than any other rodent, and mice are the next most destructive. I think the cottonwood veneer wrapper, which can be had at any dealer in horticultural supplies, is the safest and cheapest and the most convenient protection against them. But care must be exercised in their application. They must be placed closely around the trunk of the tree and should be pushed down an inch or so in the ground. They should not be applied until the growing season is over

Answers to Inquiries.

Injured Grape Vine.

Editor Green's Fruit Grower:—My dog chewed off all the bark and part of the wood on my old grape vine which covers probably thirty feet. Can anything be done or is it ruined? The vine is about fifty years old.—W. D., N. J.

Reply: A new shoot will probably start out next spring near the ground in case the old vine perishes. The roots will send forth new growth.

Fall Planting of Evergreens.

Green's Fruit Grower:—Would you kindly let me know through your valuable magazine if two-year-old Norway Spruce and Arbor Vitae can be successfully transplanted in the fall of the year. If so which is the best month to do it in?—Henry Hauser, Illinois.

Reply: Where the winters are not severe, not much below zero, fall is the best time for planting the evergreens you mention. You should bear in mind that in planting them it is like planting an apple tree in full leaf, therefore the evergreen must be handled much more carefully than other trees. Plant in October or November. Bank up with earth around each fall planted tree or vine.

Cement Floors for Stables.

Philip Clees of Pa. asks Green's Fruit Grower whether cement floors are the best for cows and horses to stand on.

Reply: While cement floors for stables are the only permanent ones and the most desirable in every way, such cement floors are too hard for horses and cows to stand on permanently. At Green's Fruit Farm we have cement floors in stables but over the floors we have plank for the horses to stand on. In box stalls the cement floors are covered with sufficient bedding or litter. No, I would not want to have a horse or cow stand long on a cement floor not cushioned in some way.

Hickory Nuts.

C. A. Green:—I have long been a reader of the Fruit Grower. I think the Answers to Inquiries the best department therefore would like an answer to the following question:

I have a shag bark hickory tree about 30 years old that has had nuts on but not for 12 or 15 years. They were very small but the thinnest shell and best flavor of any hickory nut I ever eat. Can you or Prof. Van Deman tell me what to do to make it bear larger nuts.—J. Frank Shamel, Ohio.

Reply: Wild hickory nut trees are all seedlings, therefore the nuts borne are of various sizes and of varying quality. I know of no way to get larger nuts from a tree with a tendency to bear small nuts.

Leaf Curl on Peach Trees.

Green's Fruit Grower:—Have just bought a fruit farm in Ohio. We have a quantity of fruit trees, but not in a very healthy condition. The peach trees, especially have a quantity of fruit on but they are about the size of hickory nuts and the trees begin to show the leaf curl badly. What can we do for them, or is the fruit too large to spray? H. T. Herrick, Ohio.

Reply: As regards leaf curl on the peach, we prefer spraying the trees with lime-sulphur just before the buds open in the spring. Bordeaux mixture is sometimes used for this purpose. At this time the fungus which causes the curl leaf can be destroyed fully or in part. Peach trees are sometimes sprayed when in leaf but the leaves are liable to fall if sprayed at this time. Their falling does not usually kill the trees the first year. They will leave out again the next year. I fear it is too late to help your trees this season. Spray them next year in the spring before they leave out.

Care of Blackberries and Grapes.

Editor Green's Fruit Grower:—I have a place with a lot of blackberries and grapes. Will you give me advice as to care of them?—O. W. M., Maine.

Reply: Your letter is too brief for answer. Blackberries do best on a lightish and rather sandy soil. They must be planted in rows 7 or 8 feet apart and kept well cultivated. The pruning of the blackberry is different from that of most other small fruits. If you cut back the canes severely you are likely to remove a large portion of the season's crop. But you can thin out the shoots where they are too numerous and cut out the dead shoots.

Grape vines will bear fruit without any cultivation, but in the vineyard they are

always cultivated in a shallow manner so as not to disturb the roots. Grape vines must be pruned every winter or spring before the buds unfold. I have often described the method of pruning in Green's Fruit Grower. If you do not know how to prune you should secure the services of an experienced pruner.

The Moon's Influence on Plant Growth.

Dear Sir:—Have always heard that the sowing of seed, planting of crops, pruning, etc., was influenced by the moon signs.

1—Is this true?
2—If so, kindly tell me of some book or books pertaining to the subject, also where they can be bought.—Roy G. Cable, N. Y.

Reply: There is general belief, or has been in past years, that the moon has a great influence on plants and also on animals, but these beliefs have been proved by scientific men to be erroneous. The moon is 240,000 miles away. It has no light of its own. It simply reflects the light it receives from the sun. It furnishes no heat that is perceptible. There is no other way that it could affect plants except by its light and heat. It is barely possible that the light of the moon may add unperceptible growth to plants by its faint light. I advise the readers of Green's Fruit Grower to pay no attention to the moon when planting crops or when dealing with animals.

Bitter Rot on Apples.

Mr. Chas. A. Green:—There is in our neighborhood a Baldwin apple tree which once bore fine fruit but of late years the apples are attacked with a sort of dry rot before ripening. The tree seems vigorous and is about twenty years old. The soil is good, rather low, with a small brook within 75 feet of the tree but at least 2 feet lower than the base of the tree. Good crops of vegetables are raised on an adjoining lot. Can you tell me the cause and the remedy for this trouble?—Eben P. Pratt, Mass.

Reply: The rot you refer to is probably the bitter rot. I advise spraying with Bordeaux mixture about forty days after the blossoms fall, then a second application ten days later, and a third application ten days later than that. Bitter rot is a fungus disease.

Growing Fruit in Cuba.

Editor of Green's Fruit Grower:—I have been a subscriber and reader of the Fruit Grower for about six years and I can say it is the best magazine published of the kind. I have received much help by reading it and I have interested a good number to take it. They all say it is a great help in many ways.

I am much interested in fruit raising and I want to know what kind of grapes will grow in Cuba. Will peaches grow there? What about nut trees, will they do well there? I wish to get a paper that will treat on growing orange trees.—Wm. H. Chase, Mass.

Reply: Thanks for your kind and encouraging words, which are always received by the hard worked editor with pleasure.

I am not familiar with fruit growing on the island of Cuba, but I suspect that many kinds of grapes will succeed there, not only those well known in this country but those of Europe. I see no reason why peaches should not grow there and nut trees, but I cannot speak definitely. I know of no publication devoted to orange culture.

Persian Walnuts.

Green's Fruit Grower Co.—I am a new subscriber to your paper and have been perusing the same with interest, finding the matter helpful. I have for some time been interested in the growing of English or Persian Walnuts and was much interested in the September number about the newly found grove as well as one or two other articles about nuts.

Do you think there is a prospect that walnut growing will ever be as successfully and profitably carried on in the East as in California and Oregon? Would the soil and climate of Maryland and Virginia be likely to be as favorable to the growing of these nuts as that of the Pacific States? Is there anything radically different about the soil of the Pacific States that makes it better adapted to nut and fruit growing than that of the Eastern and Southeastern States? I see that some recommend the trial of Pecans in the North. Do you think that any variety of the Pecan now in vogue could be successfully grown as far north as New York State? If so, would that be any prospect of its yielding as well as in the South? How far north do you think they could be made a commercial success? I see a Chinese Walnut, formerly called Manchuria or something like that, listed by a nursery firm in New Jersey. Do you know anything of this

nut? Is it likely to be anywhere near the Persian Walnut in quality and would it be hardy in Central New York?—Robert H. Richardson, N. Y.

Reply: No one at present knows just how far north Persian walnuts (generally known as English walnuts) can be successfully grown for market. It has not been supposed that the ordinary improved varieties such as are grown on the Pacific coast can be grown so far north as Rochester, N. Y. Those which have succeeded in western New York are hardy varieties, seedlings that came from Philadelphia, Pa. These seedling nuts are not quite so large as the largest of those grown on the Pacific coast but the shells are moderately thin and the nuts are of good salable size. All I can say at present is that there are two large orchards of Persian walnuts near Rochester, N. Y., in successful bearing that have shown no indications of winter killing, and that there are single trees in different localities of Rochester that are also producing walnuts, all of about the same size and character. It would seem as though we have in this locality a hardy strain of Persian walnut that can be safely grown in western New York and in the states lying south, but how far south I cannot specify.

Hard Soil for Fruit.

Chas. A. Green:—We take your valuable Fruit Grower and think it is fine. I want you to answer a few questions. We have two fields on our farm that we can hardly plow, it is nearly all stone. I find in plowing that the soil is richer in humus in one field than in the other but we have no success in raising grain and hay in that field. Would you advise planting fruit trees in the hard spots? What kind, apple or pear?—Walter Englehardt, Pa.

Reply: One of the difficult problems with every cultivator of the soil is to learn what crop is most desirable or profitable for the different fields, as usually the fields differ in fertility and in texture of soil. While I hesitate about advising the planting of trees on such soil as you mention, it is possible they would thrive there if given careful attention. When a boy I planted trees on a hill top where the soil was so hard I had difficulty in digging the holes even with a pickaxe and crowbar but the trees thus planted are very productive up to this day.

While I have not had any experience with dynamiting the soil, from what I can learn of the experience of others I should suspect that if you plant this hard pan field to fruit trees you should explode dynamite on each spot where each tree is planted. I advise you to get an expert to use the dynamite as it is dangerous. Generally speaking, I advise using the best field on the farm for fruits. Fruit trees in order to give their best results must be freely cultivated and this you tell me is difficult in the lot you mention. I would rather take my chances with apple trees on such hard soil than any other fruit.

Editor Green's Fruit Grower:—With the object of determining whether a rural industry may be developed that would be likely to result in improved standards of living through the increase of income over the type of general farming now conducted here, I am collecting data to learn of cases where special lines of business are being successfully carried on in the open country.

Will you kindly advise me whether any numbers of your publication have recently had accounts of distinctive farm enterprises, which are using local labor at good wages, and which have brought increased prosperity to the communities wherein they are located.

Yours very truly,

Charles H. Plump,
Secretary Redding Protective League,
Redding, Conn.

Reply: In reply I will mention the Wadsworth estate embracing many thousand acres of the fertile valley of the Genesee river south of Rochester, which formerly have been devoted to farming and to cattle raising. A few years ago the manager of this estate secured the services of Prof. Fraser, a fruit specialist, who planted large orchards of apple, pear, plum, cherry and small fruits, largely currants. The result so far has been successful. This enterprise will lead to an object lesson in scientific fruit growing which must be helpful to land owners of western New York.

Canning factories and factories for the manufacture of grape juice have been started and successfully managed in many parts of western New York. These enterprises are helpful to land owners, as are the big evaporator plants.

Over thirty years ago I was left stranded by the panic of 1873 and moved onto a run down and dilapidated farm with no other further idea than to make a living. This farm I slowly changed into a fruit farm

and nursery and on this farm I published for many years Green's Fruit Grower. All my enterprises on this place thirteen miles southwest of Rochester, N. Y., were successful and were helpful to the neighboring farmers and to the country at large. My pastor recently accompanied me to this farm. When he saw the new varieties of fruit in full bearing he said that I could not be engaged in more helpful work than in disseminating over the continent such valuable new fruits.

Parcel post is slowly but surely bringing about a more desirable method for the farmer to reach the consumer.

Grapes or Blackberries.

Green's Fruit Grower:—I like the Fruit Grower very much. I expect to move to the east shore of Cayuga Lake soon.

1. Which is more profitable, grapes or blackberries?

2. Can I supply the proper proportion of phosphoric acid to hen manure by using ground bone, and the proper proportion of potash to hen manure by using kainit? How much of each for growing, and how much of each for bearing peach and cherry trees, grapes and blackberries?—M. Earl Dungan, N. Y.

Reply: 1. Blackberries planted in the large grape growing sections will prove more profitable than grapes. But grapes grown outside of the grape belts are usually sold at higher prices than grapes grown in the grape belt. Therefore in such locations grapes and blackberries might be of equal value as market fruits. Blackberries do much better on sandy soils that are not too light than on clayey soils, but they will succeed anywhere well enough for supplying the home table. Grapes in the New York State grape belt are often sold at \$20.00 a ton.

2. Surely you can balance the ration of fertilizer as you suggest if you have the necessary skill and knowledge, which, however, is possessed by few cultivators of the soil. I should not hesitate to use the hen manure by itself wherever fertility is needed. There is no harm in using ground bone by itself or nitrate of soda or potash. But usually these fertilizers are used in combination since it is difficult to learn precisely what your peculiar soil may be most in need of. How much you should use of any grade of fertilizer can only be decided by the man who has learned by experience in cropping a certain field and then only with difficulty.

Winter Work on the Farm.

Green's Fruit Grower:—What can you suggest for winter work on the farm or the fruit farm? One complaint of hired men is that they do not get steady work during the winter months. Any suggestion you can make along this line will be helpful.—Subscriber, N. Y.

Reply: As with other country people in winter time there is less to do for fruit growers than in the growing season, when all is hurrying work to keep things well tilled and free of weeds and to gather and market the fruit. The force of work hands is always cut down because so many are not needed and to save expense. But there is some work that can be done even on stormy days. There may be tools to mend or new ones to make and there ought to be a shop where all such things can be done. A supply of short singletrees to use when cultivating near trees, etc. And they should have leather protectors or something of the kind on their ends to prevent scraping by the iron clips to which the traces are hitched.

During any sort of weather when it is not too severe to be out of doors there is good opportunity to do mulching. The fresh manure from the stables and stock lots can be hauled out and the coarser and more mixed with bedding or other trash the better it is for mulching. All the soluble fertility will be saved by soaking into the ground when melting or wet weather comes and the coarse stuff will serve to keep the soil cool and moist and gradually rot and make humus in the soil. If there is snow on the ground that makes the hauling so much the easier and provided the manure is not frozen so as to be impossible or difficult to handle. Blackberry, raspberry and currant bushes are wonderfully helped by liberal mulching. Old straw, hay or anything that will gradually rot and add fertility to the soil will help keep down weeds and save a lot of hard work keeping the bushes in a clean and thrifty condition in summertime when they really must have something of the kind or suffer.

Bushes that have their roots covered in sods always will endure drowth and carry their fruit to maturity. I never raised so good blackberries nor gathered better ones beside old rotten logs in the wild state than those I grew in Kansas on bushes that were mulched with coarse stuff from the cattle lot. There is some winter work always to be found that needs doing.

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Farm Crops Forty-Eight Years Ago.

Green's Fruit Grower:—In perusing the report of the Department of Agriculture for the year 1865, I came across the following on page 296 of what we now call the year-book. This will no doubt be of interest to your readers, especially in making a comparison with our present day times in regard to high prices of domestic necessities and progressive methods of farming.

"Farming and vegetable growing are not conducted on small plots only with success. We have had returns of potato growing on a scale of considerable magnitude. On thirty-two acres there were raised, in 1864, 3,274 bushels of white potatoes, which sold for \$4,800. On the same farm, upwards of 40 acres produced nearly 50 bushels of corn to the acre, though the season was quite unpropitious, or more than 2,000 bushels, which at the present rates, are worth quite \$3,500. On the same farm, cattle to the value of \$6,000 were fattened.

It must not be supposed, nor is there any probability that the above recitals of large crops and heavy returns per acre, under high manuring, and large expenditures for fertilizers, will induce the reader to imagine that these are very common cases, or that the farmers of Camden county are rapidly becoming rich. There remains the per contra—the debit side—where poor farming without capital, small expenditures by timid, old-fashioned men, who decry all the innovations which the agricultural press is constantly urging upon their attention, result, as it should, in poor returns, which have kept, and ever will keep, such farmers poor. Some of these men are scarcely making their expenses. They are deriving no advantage from the present high rates of farm produce, because they have no surplus to sell; while they are oppressed by the increased cost of every article entering into the list of domestic expenditure. These not having moved with the tide, will be left stranded when it retires.

The record is before me of a farm of 100 acres, nearly all arable, from which less than \$2,000 gross product was taken. Nor is this a solitary case. This poor exhibit is made for a farm of good quality, capable of largely increased product, as is proved by the returns of that adjoining it of similar soil, etc. The latter, about 50 acres arable, presented a gross return of more than \$7,000. The yield of hay of the latter was more than two and one-half times greater; that of corn nearly twice as great; of potatoes, two and one-half times; turnips four times larger in the well-tilled farm than on that poorly managed. Both farms are occupied by tenant, but of very different character, education and capacity.

From another farm of thirty-six acres the gross returns were made of but \$375, which may be placed on the scale against another of twenty-five acres, which showed an aggregate value of crops of about \$2,500. Finally, we have received returns of total products of a farm of one hundred acres in Camden county, whose aggregate yield for 1864 amounted to \$15,000, the sales of vegetable products alone having exceeded \$12,000, a yield and a gross product unsurpassed by any other cultivator with whose success we have become acquainted."—S. S. Bishop, M. D., Carlisle, Pa.

Green's Fruit Grower:—I expect to locate soon on south coast of Cuba and wish to get some plants of the commercial currant from the Gulf of Corinth, Greece. I believe they will grow here on our limestone hills. Have you the variety or can you procure them for me? Would seeds procured from the dried currant that can be bought in New York be likely to grow?—W. H. Bemis, Cuba.

Reply: The dried fruit that comes from the Mediterranean region is not properly called currant but is the product of several very small and almost seedless varieties of the grape. In fact, these "currants" are only small raisins. They are grown to some extent in California but they are so cheaply produced in Southern Europe that it is not very profitable to grow and dry them in this country. It is not likely that they would flourish in Cuba but they might and it would do to try a very few vines. The best variety is called "Thompson's Seedless", in California and may be bought of almost any of the nurseries there. None of the varieties are grown by the eastern nurseries because the species of grape to which they belong, *vitis vinifera*, does not flourish east of the Rocky mountains.

The name "English currants" is supposed to have been derived or corrupted from Corinth the port in Greece from which the dried fruit has long been sent to England very largely and from there distributed over the world.

Editor of Green's Fruit Grower:—I am interested in walnut growing and would like to know in what other part of the United States they may be grown besides California and Oregon where I

believe about 95 per cent. of the entire annual crop is grown at present. I am particularly desirous to learn if they may be grown in Virginia.

What is the best stock for Eastern conditions? Here we use the California black or a hybrid resulting from a cross between the California black and the English walnut.

What is the lowest winter temperature the English or French varieties (Tranquette est. will stand? I have heard of a commercial walnut grove somewhere in Connecticut. Could you give me information regarding this grove and its location?

Hoping you will at least answer my first question, the adaptability of the commercial walnut in Virginia in your valuable paper.—W. Grotophorst, Cal.

Reply: The Persian walnut will grow and does grow in Virginia and other eastern states but it is not successful in the central states because of the violent changes of temperature that occur. It is not known just how low a temperature the Franquette or any other variety will endure but there are trees that have safely passed through 20°-zero. The dryness of the soil and air and the duration of the cold spell have much to do with this matter. I do not know of the walnut orchard in Connecticut but there are a few trees in several parts of that state and commercial orchards near Rochester, New York and in Central Pennsylvania.

Fencing for the Orchard.

Written for Green's Fruit Grower by J. S. Underwood.

In my experience with different kinds of fencing for the orchard I regard the woven-wire fence as the best. I am using a smooth woven-wire fence, without any barbs at top or bottom. The posts are walnut and white cedar. I paid forty-two cents a rod for the fencing, delivered at

Most engines have a gasoline supply pump for pumping the gasoline from the supply pump to the mixer or carburetor or possibly a gravity feed therefore the gasoline does not need any attention after the supply is once adjusted except to keep the tank full and that should be large enough for at least a days steady running, the most serious trouble one has with the gasoline engine is the ignitor usually electrically either the jump spark or make and break the former causes the least trouble on small engines and if the engine does not start as readily as it should whether with the one or the other it is the batteries and is the first place to look for trouble although possibly the plug is covered with carbon which causes short circuiting or the make and break points have burnt away, these are troubles and are found in starting or if running the engine skips every little while the batteries are getting weak and it is always best to have a second set to switch on so as not to get caught with a stalled engine with a lot of work on hand, as before stated these troubles occur upon starting therefore no attention need be paid to this end after starting.

Oiling on most engines is done automatically either with grease cups or sighted oil cups and should hold enough for a day at least or possibly some makers supply small cups that will hold a half days' supply of oil or grease but think these will be found very small as compared to those with the oil cups, even all oil cups should be placed so they can be filled while running.

The essentials of the machine are given above and it can readily be seen that after once started that one can leave the machine running and go away for the day for there is only two things that can happen and that would stop the engine either no gasoline or no spark for ignition, and the engine would stop with no harm done. There is only one thing that most

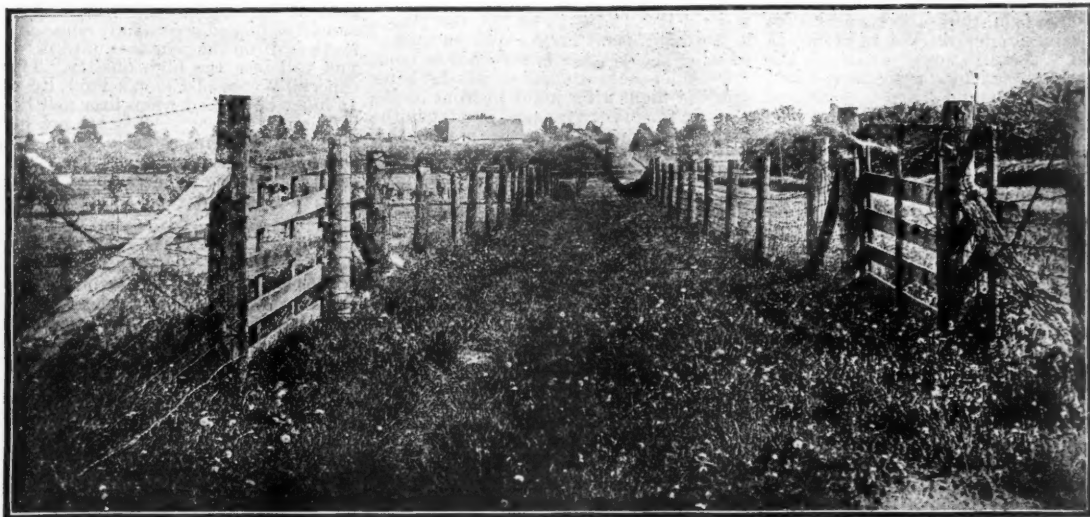
maintained, but in the homes of many of our neighbors. No matter how pressing the work might be, they daily obeyed the command, "Seek ye first the kingdom of God and his righteousness."

They truly believed that all necessary things would be added unto them, and they were not disappointed. The boys who went from these homes were sought after because of their sterling integrity and capability. Many of them rose to the highest rank in their chosen professions and occupations and their influence was a power for good in the land. The girls from these homes made excellent wives and mothers who raised up children that were a credit to their parents.

Today all this is changed. One would have to travel many miles among the farmers to find a dozen homes where family worship is maintained.

The following from an editorial in the Wall Street Journal is very true and to the point. "What America needs more than railway extension and Western irrigation, and a bigger wheat crop, and a merchant marine, and a new Navy, is a revival of piety, the kind father and mother used to have, piety that counted it good business to stop for daily family prayers before breakfast, right in the middle of harvest; that quit field work a half hour earlier Thursday night, so as to get the chores done and go to prayer meeting. That's what we need now to clean the country of filth, of graft and of greed, of worship of fine houses and big lands and high office."

A Cure for Heaves:—A cure for heaves is to put a level teaspoonful of pulverized borax in the feed of the horse once or twice a week says A. L. Tamblin in New Witness. It will stop the cough right away, and in six months you couldn't tell the horse ever had the heaves. Burdock leaves are also good for horses and they like them.



Lane fence leading back into fields and orchards that does not encourage snow banks.

my railroad station, and eighteen cents each for what posts I failed to procure from my own farm. I obtained the majority of the posts from my premises, however.

In building the fence I set the corner posts four and one-half feet in the ground to insure solidness of the posts, which is of the greatest importance with a fence of this kind. The posts were set twelve and one-half feet apart. The end and corner posts were well anchored with two boards in front and back and a cable wire from the top of the posts fastened to a large stone, which is lowered about three feet into the ground. I can say with pride that this fence is giving me better satisfaction than any I have heretofore used, and will stand without repairs for a good many years. In building a fence of this kind there are three essential things that should be borne in mind, namely, tight stretching, solidness of posts and anchors, and lasting qualities.

Gasoline Engines Require no Engineer to Watch It Running.

Green's Fruit Grower:—On page eight of the September issue of Green's Fruit Grower Subject: Gasoline Engines On the Farm—I wish to say emphatically that a man or attendant does not have to look out for a gasoline engine while in operation as some believe nor is there the least danger from one of these prime movers if properly installed and if not then the danger will be from leaky joints which are exposed to a flame.

The above is general and may be modified as to some engines and kinds of engines in use especially some of the older makes, for instance there are only three things that have to be supplied: first gasoline, second ignitor and last cylinder oil for cylinder and oil for bearings.

every one forgets and that is to see that all bearings have the necessary oil not too much but enough, for machinery should be temperate as well as mankind and at starting all oil cups should be filled and care should be exercised that the oil gets into the bearing even if one has to examine them by taking off the caps and cleaning out the oil holes occasionally.

When one says that one has to stand and watch the engine run he wants what some would call a soft snap although I would not want the job, for even on very large units one attendant looks after a number of very large machines and are simply oilers and after a day or two with a new machine no care or constant attention should be given to these excellent little farm helpers, don't forget that they are a machine and one that needs some care which I am sorry to say does not get in many instances and it is a wonder that some can be made to run on account of the neglect I see on many farms.

If the above is of interest enough to publish in your excellent paper do so for if others get as much from it as I do you are welcome to what little I can write.—Edwin C. Bliss.

Family Worship.

Written for Green's Fruit Grower by Marvin L. Piper.

Fifty years ago family worship was held every morning in many farmers' homes in New England and northern New York. I well remember how father used to take down the big Bible from the shelf where it was kept, and after reading a chapter, knelt down in front of his chair and offered his thanks and petitions to the Heavenly Father. Mother often followed him, asking for strength and guidance for the day, and that her children might be followers of the lowly Jesus. Not only in my boyhood home was the family altar

BUILT RIGHT.

Stomach, Nerves and Thinker Restored by Grape-Nuts Food.

The number of persons whose ailments were such that no other food could be retained at all, is large and reports are on the increase.

"For 12 years I suffered from dyspepsia, finding no food that did not distress me," writes a Wis. lady. "I was reduced from 145 to 90 lbs., gradually growing weaker until I could leave my bed only a short while at a time, and became unable to speak aloud.

"Three years ago I was attracted by an article on Grape-Nuts and decided to try it.

"My stomach was so weak I could not take cream, but I used Grape-Nuts with milk and lime water. It helped me from the first, building up my system in a manner most astonishing to the friends who had thought my recovery impossible.

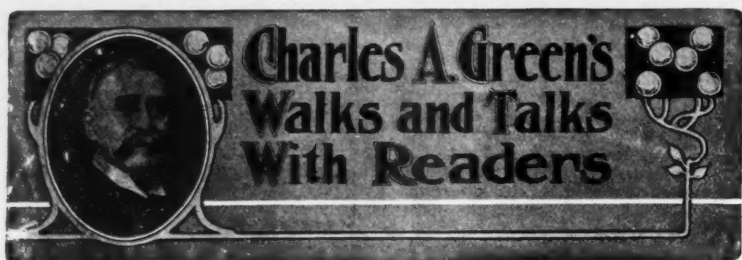
"Soon I was able to take Grape-Nuts and cream for breakfast and lunch at night, with an egg and Grape-Nuts for dinner.

"I am now able to eat fruit, meat and nearly all vegetables for dinner, but fondly continue Grape-Nuts for breakfast and supper.

"At the time of beginning Grape-Nuts I could scarcely speak a sentence without changing words around or 'talking crooked' in some way but I have become so strengthened that I no longer have that trouble." Name given at Postum Co., Battle Creek, Mich.

"There's a reason," and it is explained in the little book, "The Road to Wellville," in pkgs.

Ever read the above letter? A new one appears from time to time. They are genuine, true and full of human interest.



"Think nothing done while aught remains to do" said Napoleon.

ROCHESTER, N. Y., NOVEMBER, 1913

Neither error, nor seeming, nor false doctrine can last. Only truth in the end can prevail and truth is God.

Weary Wife Steals in Order to Secure a Better Home.

This delicate little woman entered a dry goods store and in the presence of the salesman picked up a piece of silk and walked away. When she was arrested she said that she was so unhappy in her home, receiving nothing from her sons and her husband but abuse, she stole the silk in order that she might be taken to prison where she hoped to find a happier home than had previously been provided for her. This would seem to most readers as fiction and not fact, but it is absolutely true. Wives need encouragement. By encouragement and kind words we can all accomplish much more and be much happier at our work.

The German Emperor as a Farmer.—Emperor William of Germany has purchased a farm of about 600 acres. He is striving to improve breeds of cattle and other live stock and to improve the yield of grain. He selected the longest heads of rye and those best filled with grain from a large field, thus securing a handful of the most productive plants of rye in the field. These he sowed and from the product of these superior seeds he again selected the best and longest heads and the best filled with grain. He continued this process until now he has secured a new type or breed of rye which yields double the amount formerly secured. It is possible to increase the yield of fruits, vegetables and grain by a similar process. There is nothing new in this achievement of the Emperor of Germany.

A Niagara Peach Measures 10½ Inches Around and Weighs 10 Ounces.

We have just received a letter from W. Joy of Hillsdale, Mich., stating that he has picked from a tree of the Niagara peach a specimen measuring 10½ inches which weighs 10 ounces. We are hearing good reports of Niagara peach from many sources. Another fruit grower reports that Niagara peach is the best in quality and the most beautiful in appearance of any peach on his place.

This peach originated in Niagara county. Mr. J. S. Woodward, formerly director of farmers' institutes in this state, and long vice-president of the Western New York Horticultural Society, first called our attention to this remarkable peach. It was through his influence that we became interested in it and began to plant and propagate this valuable variety.

\$3000 From Roadside Cherries.

A friend living not far from Niagara Falls, N. Y., tells me of a farmer who planted cherry trees on either side of a lane or roadway running through his farm. This roadway was about one mile long. The cherry trees did not obstruct cultivation in the least and occupied scarcely any ground. The owner of these cherry trees has sold in one year \$3000 worth of cherries, clearing as net profit \$1800. The editor of Green's Fruit Grower endeavors to be very careful not to exaggerate in regard to the yields of fruit. He is so careful that sometimes he does not tell of as big yields as he might. The above story seems like a large one but the friend who tells about it is absolutely reliable. She has driven over this mile of roadway adorned by the beautiful fruit and says it was a wonderful sight.

Sacred Work.

Throughout the past men and women have been accustomed to designate church work which they are doing as sacred work. Of late years we are coming to think of all honest work as sacred, one line of work being as honorable as another. The clergy are coming to concede now that the work of the blacksmith if well done may be as sacred as that of the man who prays and preaches in his pulpit. This thought is illustrated by the ship caught in a storm, which was in danger of being driven on the rocks, but which was held in a position of safety by the anchor chain. Well may the crew of this ship watch with interest every link of the anchor chain

within view to see if each link was honestly made. If the blacksmith has been careless or shiftless one link may lack in strength, the chain may part and the ship and its load of passengers find a watery grave. But if the blacksmith's work has been honest work, sacred work, the links are all perfect and the ship rides the storm in safety.

Pity the Musician.

As I entered the annual fair held in Rochester I found a large band of musicians playing near the entrance and sat down nearby to listen. I could not help feeling sorry for the men who spend the larger part of their waking hours, that is who devote almost their entire lives, to tooting on one horn or playing on some other one instrument. No person ever secured great wealth and scarcely more than a competency by joining a band of musicians and tooting on a horn. No matter how much a man may enjoy music this continual blowing of a cornet or trombone must become monotonous, and then the musician must sit almost continually. Nothing tires me sooner than sitting for a long time. If the musician is not sitting he is compelled to take long tramps, often miles in length, carrying a heavy instrument meanwhile, no matter whether the weather is very hot or cold.

Consider the musician who sits day after day and night after night in front of the stage in the pit of a theatre, playing in the orchestra before and between the acts. Think of the stifling atmosphere there and of the monotonous repetition of the same words by the same actors throughout the play, twice a day for a week or more. How true it is that you and I, farmer and fruit grower, have such a favored occupation where we can breathe the fresh air, walk in the bright sunshine and enjoy the beauties of nature.

Keeping Pears in Cold Storage.

I recently interviewed a man who has had large experience in keeping pears in cold storage. His experience has been most largely with the Bartlett pear. This man tells me that the pears as picked without any sorting are placed in ordinary sized apple barrels, the heads put in temporarily, and are at once driven to the cold storage house.

The pears are picked when they are green and hard and before they begin to ripen on the tree. He says that the pears are allowed to remain in cold storage until the market price has advanced. It does not matter whether they stay there a month, three months or six months, they are kept there at an expense of 40 cents per barrel without regard to the length of time. When the market seems to be just right the barrels are taken out of storage, are graded into first class, second class and culls, and shipped in carload lots. He says that he does not doubt that the Bartlett pear can be kept a year in cold storage. He has kept apples as long as that.

The cold storage referred to by this fruit grower is that which is found only in the larger cities where expensive machinery and ammonia are used and where the temperature can be kept at any degree desired practically without change.

When the Bartlett pear comes into the market there is apt to be an oversupply. This fruit grower says he has never failed to receive a higher price after the Bartlett season is over from the pears he has placed in a cold storage house.

I think it was Pinchot, former Commissioner of Forests, who said he could illustrate how forests prevent floods by tilting a wooden or marble top table and pouring upon the hard surface a dipper of water, which would rush off from the table in a flood. Then he placed upon the same table top a large heavy sheet of blotting paper. On pouring the water on this table thus covered a large portion of the water was absorbed by the paper and the flood was less noticeable.

But forests do more than this. It is true that they prevent the rapid passing away of heavy rain storms, but the foliage and the bark of the trees absorb considerable of the rainfall. The fallen leaves, the decaying twigs, the compost formed on the surface of the soil by years of the decay of the leaves, certainly absorb

vast quantities of water and retain it for a long period, as is partially illustrated by the blotting paper upon the tilted table.

On Green's Fruit Farm was located a swampy tract. When this swamp was cleared of timber and land became dry enough without drainage for growing farm crops.

Clapp's Favorite Pear.

This is a remarkable variety but it has taken many years for its merits to become known. It is unfortunate that new varieties of fruits cannot be placed in the hands of fruit growers generally sooner than they are. It requires from 20 to 40 years for a new fruit to become well known throughout this country. The average fruit grower is ignorant in regard to the newer varieties. They know of such old varieties as Crawford peach, Bartlett pear and Baldwin apple and here their knowledge seems to end. There are thousands of other valuable varieties many people know nothing about. The people who sell fruits at the fruit stands for five to ten cents apiece in most instances cannot tell you what variety they are selling.

When a man has once planted a tree or two of Clapp's Favorite pear and learns from its regular bearing every year, its heavy load of large showy red-cheeked fruit, ripening at a season when there are no large and good pears in the market, that is earlier than Bartlett, his enthusiasm begins to burn and forthwith he sends off orders to the nursery for more of the trees of the Clapp's Favorite pear.

This year the foreman of Green's Fruit Farm reports that he sold the fruit of Clapp's Favorite pear at about double the price received for Bartlett pear for the reason that Clapp's pear ripened earlier than Bartlett.

As regards quality, many will claim that Clapp's is superior in quality to Bartlett. The quality certainly is as good as Bartlett but different. All pears should be picked before fully ripe. If you leave fruit on the pear tree until it is ripe you will lose the high quality. This is especially true of Clapp's Favorite pear. It must be picked when firm and before it begins to color. All pears are better when ripened in a dark room. Pears reach their highest color when put in layers on a woolen blanket or in a drawer, and then are covered with the woolen blanket.

Thinking in Terms of Bushels.

When you speak or think of giving dollars you do not get so clear an idea of the amount you are giving as you would if you reduce the dollars to bushels of some kind of produce which you are growing. The average price of potatoes being 50 cents per bushel, if you are donating to the church or to some other worthy object \$100, you are donating 200 bushels of potatoes. This is what I mean by thinking in terms of bushels. If you are planning to donate \$50.00 to a certain good cause when wheat is a dollar a bushel, you would be donating 50 bushels of wheat. If apples are worth a dollar a bushel and you are donating to some good cause \$10.00, you are donating 10 bushels of apples. That you may get a clearer idea of the value you are giving by the concrete object than you are by the dollar bill or coin, I will call your attention to a penny, which most people would pick up more carelessly than they would the product that could be bought for a penny, for instance than a long stick of candy or a daily paper, which can be purchased now for a penny.

Those men are unfortunate who cannot think in values other than in dollar bills or dollar coins. Here is a clergyman who considers the farmer stingy who went into Buffalo and spent only 25 cents for his dinner, when the fact is that in paying 25 cents for his dinner he paid out the value of half a bushel of potatoes, which it seems to me should provide a fairly good meal for the man who is not capricious about his food. But sometimes 25 cents worth of food is enough. We do not at the same amount of food each day or each meal. Sometimes we all feel like partaking of a light meal consisting of not more than a dish of soup, crackers and tea or coffee.

Lives on Berries.

A man desiring to experiment on his health of a natural life such as is lived by the wild beasts of the mountain has discarded all clothing and all of the implements of mankind, even to the extent of fire arms or matches, and has started out to spend two months in the wilderness, far from the habitations of man.

The first night was rainy and he had no cover or protection. It was also so cold that he could not sleep. My astonishment is that he did not take a severe cold and die of pneumonia. He had no medical remedies with him and no physician could have been secured if one had been wanted. Possibly this man was wise enough to inure himself for such

exposure by some process before he started out for the wilderness.

He had previously learned how to start a fire by friction. At first he did not suffer from hunger. When hunger came he searched for an opening in the forest where he found ripe raspberries which he ate freely and on which he existed for several days. He says that he never felt so well and strong as he did on this diet of wild red raspberries. He caught a few trout with his hands but having no salt did not relish them, therefore after building a temporary hut of bark, logs and brush, he returned daily to the diet of red raspberries without any discomfort or physical disorder.

When an Indian was asked how it could be possible for him to rove through the woods without garments in cold weather, he asked in reply, "How is it the white man can go about in winter with his face uncovered and naked?" The white man's answer was that he had become accustomed to having his face exposed. "Well," was the response of the wild man of the woods, "Indian is all face," meaning that whereas the white man had exposed his face only and made it hardy enough to withstand the winter's blast, the Indian had exposed his entire body and made his body capable of withstanding the blast without injury.

Herein we see the possibility of doing much for health by practice. It is not absolutely necessary that we should wear so much clothing. We have formed the habit of dressing warm and therefore we continue the practice. Our women folks do not dress nearly as warm as we men. Perhaps you can learn the reason by inquiring.

Gathering Fruit in the Home Garden.

I greatly enjoy taking a basket on my arm and going through the fruit garden for samples of fruit. I do not allow my men to pick all the peaches, pears, plums, or other fruit from the tree at one time in my home garden. I enjoy strolling out into the fruit garden with my basket, picking a few of the largest and best matured peaches. Then I stroll over to the pear trees in that row of dwarf pear hedge running from my garden and pick a few of the largest and best developed Bartlett pears and Seckel. In this way I gradually thin out the fruit on each tree, allowing other specimens to remain on the trees to develop further and enlarge and to increase in quality, that is in flavor. If I have an excess of these fruits I select from the different trees and different varieties baskets of fruit for my friends, which are highly appreciated. Generally these specimens of peaches or pears are not soft when I pick them, therefore I place them in a cool room in my house. In a few days they are ready to eat. Then I go out again and visit the same trees and again pick the largest and best developed specimens, thus I have in a cool room in my house baskets of ripe fruit and baskets of ripening fruit.

About the middle of September my grapes begin to ripen. The Worden, the Green Mountain and the Delaware are ripe enough to gather for the first installment. You can imagine the pleasure I take in strolling out through the grounds, picking a dozen or so clusters of grapes of each variety and leaving the basket in my dining room where myself and other members of the family can enjoy them. I do not pick all these grapes at once. Some of them I leave on the vines until the middle of October and some even later. My Worden vine climbs up under the eaves of my kitchen where the frost does not disturb the grapes, therefore they can remain there until winter approaches. Here is a process of thinning fruit which is not often considered by the fruit grower. I have observed that my Bartlett pears will remain in good firm condition on the trees for nearly a month after I have marketed the main crop of Bartletts. The pears being thinned daily, as I have mentioned, for family eating is a process of thinning, permitting those which remain on the tree to receive additional vitality, thus those remaining continue to enlarge and to improve as the days go by.

My purpose is to continue talking about the delights of having an abundant supply of the various small and large fruit in the home garden. Fruits are profitable in the orchard when sold by the barrel or carload but there are no fruits so profitable as those grown in the home garden for the home supply.

Travels of the Turkey.

The first turkey eaten in France was served at the wedding banquet of Charles IX. The Mexican birds were taken to Europe and then brought again to America as domestic birds. The journals of many of the explorers, among them, Capt. John Smith, record the attractive qualities of the wild turkey. They were plentiful from Canada south to the seacoast. One English traveler wrote of the "great store of the wild kind of turkeys, which remain about the house as tame as ours in England."

Pears Cultivated Compared With Those not Cultivated.

Standard pear trees will thrive in soil without any cultivation but you cannot expect such large fruit when no cultivation is given as you can when the trees are standing in cultivated ground. This fact was made plain to me this season by comparing the size of Bartlett pears grown on trees that had been planted along a line fence where no cultivation of any kind had been given for many years with Bartlett pears grown in my garden where ample cultivation has been given, or you might say extraordinary cultivation. The trees growing in my garden bore fruit fully twice as large as did those growing in uncultivated soil. But the trees growing without cultivation were standard pear trees and those growing in my garden were dwarf pear trees. It is claimed by some, justly, that dwarf pear trees often furnish larger fruit than standard pear trees under the same circumstances.

The Bartlett pears grown in my garden are on that row of trees which I often allude to as a dwarf pear hedge row where the trees were planted three feet apart some fifteen years ago. These trees are heavily loaded with fruit almost every year. It is a great pleasure for me to go with my basket and pick these large and luscious pears. If you have a garden in which you can plant a row of dwarf pears 50 or 100 feet long, planting the trees 13 feet apart in the row, and you plant a number of varieties ripening early, medium and late, I will guarantee you will have something that will delight not only yourself but every member of your family.—C. A. Green.

The Year it Rained.

Editor Green's Fruit Grower:—I was much interested in your article "My Brother's Wife." I well remember the year that it rained all through haying and harvesting. It was long about 1854 or 5. I was living at that time at the village of Westbury, Wayne County. Father bought a field of grass. We had it cut, cured and in cock ready to take to the barn, but the rain came and lasted a week, completely ruining the hay. Wheat all through that section sprouted in the shock which of course affected the flour, so it was practically impossible to get good flour. I call to mind mother sending me to the grist mill to buy some flour telling me to insist on getting that that was good. When I asked the miller if he had any good flour I shall never forget his answer: "Did you ever hear a fish man crying 'stinking fish' on the street?" The flour was bad just the same, made, as it was, from sprouted wheat.

A neighbor of ours had a field of wheat and corn with no fence between, so he could not pasture the wheat field during the fall. He gave father permission to cut all the grass he could find in the wheat stubble, on account of the wet season there was a good supply of grass. We cut and cured enough hay from that field to carry our horse and cow through the following winter, yes and our poultry too, as the hay contained the scatterings from the wheat. No sooner would a forkful of hay strike the floor than the hens would begin to scratch for the wheat heads.

We left Westbury the spring of '56 and bought a little farm two miles west of Fulton where my brother and sister now live. I enlisted May 4, 1861, served through the war, and was awarded a Congress Medal of Honor, which was sent me by President Mc Kinley for removing from between the firing lines a wounded comrade, at Amelia Springs, Va., April 5, 1865. On January 2, 1912, I received from Governor John A. Dix a commission as Brevet Major for the same act.

Out of 503,765 enlistments from the State of New York, there were just 255 soldiers and 104 sailors and marines who were awarded the medal. I have an official sketch of every commissioned officer who served during the war of the rebellion from the State of New York.—S. E. Chandler, Minn.

In Partnership With Father.

Written for Green's Fruit Grower by Leona Dix Barnes.

What boy can resist a partnership with an indulgent father who offers him every opportunity needed for success in the world?

The only qualification for that partnership is that the boy take an interest in the business. If the father has been a companion to his son no doubt he will be already interested. Notice even in politics how children are generally inclined to father's ideas.

Suppose the partnership to be farming, or some particular phase of the farm work, such as stock raising, etc. The boy is sure (?) to find much literature lying around of benefit to father in his business. At first he may pick up a magazine simply to look at the pictures, but before long he is asking father to explain the pictures, and soon is reading to find out for himself.

GREEN'S FRUIT GROWER

AN ILLUSTRATED MONTHLY JOURNAL

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On the other hand, if father is one of those busy men who will never take time to explain a picture, teach the boy to drive when he is eager to take hold of the lines, read a story, or play a game of ball, then he must not wonder if his boy enters other fields of endeavor and little cares what becomes of the old farm. If you want the boy to take a special interest in you, you must take an interest in him.

The wise father, having made a proper study of his child and having ascertained whether his walk in life will be similar to his own, will educate the child for the particular business decided upon even though it be agriculture.

There are many things to induce the rural lad to become a farmer. To begin with his home is on the farm, there are agricultural text books in the schools, Friday afternoon visits of the school to the stock farm, dairy and to the woods to study the trees and birds, the county and state fairs, and corn contests that take him to visit our capital cities. All these tend to encourage him in his love for the farm. I trust school boards will soon awake to the fact that this demonstration work is absolutely necessary and make it compulsory for the teachers to give at least a half day each week in favorable weather to some form of this work. If you are anxious that your boy be a stockman, take a day off and go with him to the stock show or state fair. It will do the boy world's of good and you too, for such institutions leave a wonderful impression. The corn boys will never forget their trip to the nation's capitol. We must not keep the boy tied too closely to business and never give him a day off for pleasure, but we can go to the extreme in the other direction also. Leave him in charge of the work occasionally so that he may be able to manage the business when father leaves altogether.

The partnership should not be one in name only, but father and son should be partners in the money interests and investments. The boy should know exactly what percent is his and which belongs to father in order to preserve that harmony so necessary to a successful partnership. Do not interfere with the boy's originality in his way of doing things. Offer suggestions, but remember that his way may be as good or better than yours, and it teaches him responsibility. If he makes a mistake he will profit by it and to fail is to pave the way for greater success if he has the right spirit. Be a companion to your son, encourage him at every opportunity, tell him when he does well. As a result he is bound to respect father and love his work.

Cats Destroy Birds.

Editor of Green's Fruit Grower:—Being a great lover of birds, both from an economic as well as from an aesthetic point of view, I was interested in the letter written by Bertram Hall in a late number, in which he speaks of the "night hawk" as though it belonged to the same family as the other hawks. The "night hawk" or "bull bat" is neither a hawk nor a bat, but belongs to the Goatsucker Order of birds, and is first cousin to the whip-poor-will. It is not a bird of prey at all—living chiefly on insects, and not being capable of killing even the smallest chick.

While nearly all hawks are of great economic importance, living chiefly on mice and other small mammals, snakes, etc., there is one kind, namely, Cooper's Hawk (Accipiter cooperi) and its two near relatives, which are very destructive, living on poultry and birds, and should be exterminated. The greatest enemy to birds in the world, however, is the

common house cat. In ninety-nine cases out of a hundred, a cat will hunt birds to the exclusion of mice. These animals are unnecessary in keeping down the number of mice about the house. I have never found any difficulty in ridding the house of mice in a few days by means of a common old fashioned trap, which can be bought anywhere for five cents. Use the wooden ones not the tin, and keep everything that a mouse can eat out of their reach. Bait with bacon or cheese, seared with a match after baiting the trap.

Cats are especially destructive to young birds, and will "spot" a nest, to raid it at night after the young are old enough to make a dainty morsel. It is said on good authority that cats destroy song birds to the average of fifty birds annually to each cat. It seems incredible to me that so many people of apparent culture and refinement can be so barbarous as to harbor cats, when they must know of their destruction of song birds, and must know also that cats are unsanitary and carriers of disease.

Every horticulturist, agriculturist and bird lover should send to his congressman or to the U. S. Department of Agriculture for Bulletin 513, entitled, "Fifty Common Birds of Farm and Orchard," and study it carefully. It is worth more than its weight in gold.—S. W. Mellott, M. D., D. C.



English Ivy on Oak.

Those who know the English Ivy only as a house plant would be surprised at the way it flourishes out of doors in the moist, mild climate of the Pacific coast. Here its strong growth is sometimes more than a match for the oak and fir trees which it will almost completely cover. This picture shows an oak tree nearly hidden with ivy, its own branches reaching only a little beyond the densely matted ivy. And the large fir tree has its trunk entirely covered with ivy far up among its branches, with a breadth of over five feet at the base.—M. E. B.

The Great Lincoln Highway.

Church going in the farming districts and among the rural residents of the great cities has been dependent upon the conditions of the highways, so that the good movement is one that vitally interests those engaged in church work.

For that reason, among many others, the plans for The Lincoln Highway, which is to stretch from coast to coast and thereby prove an inspiration and a standard for other good roads, should attract the attention of every minister or priest who ministers to the spiritual wants of those who of necessity live far from the worshipping house. It is to be a model thoroughfare, built principally of concrete, smooth and dustless, affording traffic the best of roadbed in winter or summer and making it just as easy for

the farmer or the suburbanite to get to church on Sundays in winter as well as to transact his town business on week days.

It will do more than be a memorial to Abraham Lincoln, the martyred president, great as that purpose is, because it will stimulate good road building wherever its influence is felt and the church just as the business man and the farmer will benefit.

It proposed to raise a fund of \$10,000,000 with which to build a continuous Highway from New York to San Francisco, running as directly as possible but taking in many points of scenic and historic interest. Its officers are men of national character and reputation, and of the amount to be raised nearly one half has already been pledged. Much of the support has come from the automobile manufacturers who will benefit by the construction of the Highway.

In order to create even wider interest the officers of the association have prepared certificates of membership in The Lincoln Highway Association which are issued for \$5 each or for larger amounts. These certificates, together with a membership card and a beautifully engraved brass plate which can be attached to the dash board of an automobile or used as a paper weight, are sent direct from the national headquarters on receipt of the membership fee.

The Lincoln Highway Association is not a moneymaking institution and the money that is received for the Highway will be expended on it. The character of the directors who are personally giving their time and attention to the project is proof that the Highway is a national institution to which every one should contribute because it will add to the prosperity of the country.

Rhubarb Growing in Winter.

Mr. W. B. Long asks for information on the above subject. I have no personal experience but have heard of market gardeners who dig up the roots of rhubarb entire in the fall and plant them closely together in an ordinary cellar and cover with garden soil to about the usual depth when planted outside. Shoots will appear, the growth being accelerated by warmth or retarded by cold in the cellar.

In reply to another question I will say yes, you can fill out the vacant places in your strawberry rows with young plants that have taken root in other parts of the rows.

Persian or English Walnuts.

Mr. N. McLeod asks how English walnuts should be planted. As soon as the nuts are ripe I gather them from the trees and plant immediately in a trench made with a hoe. Make the trench three inches deep in loose cultivated soil and press the dirt firmly over the roots, placing a row of stakes in the row of nuts to remain there permanently to mark the row and to prevent children from stepping on the young plants. There is no difficulty in making these nuts grow if planted at once after they are gathered before they become dry, but the growth of the young trees is not rapid, at least for the first few years.

A FOOD DRINK.

Which Brings Daily Enjoyment.

A lady doctor writes: "Though busy hourly with my own affairs, I will not deny myself the pleasure of taking a few minutes to tell of my enjoyment daily obtained from my morning cup of Postum. It is a food beverage, not an irritant like coffee."

"I began to use Postum 8 years ago, not because I wanted to, but because coffee, which I dearly loved, made my nights long, weary periods to be dreaded and unfitting me for business during the day."

"On advice of a friend, I first tried Postum, making it carefully as suggested on the package. As I had always used 'cream and no sugar,' I mixed my Postum so. It looked good, was clear and fragrant, and it was a pleasure to see the cream color it as my Kentucky friend wanted her coffee to look—'like a new saddle.'"

"Then I tasted it critically, for I had tried many 'substitutes' for coffee. I was pleased, yes, satisfied with my Postum in taste and effect, and am yet, being a constant user of it all these years. I continually assure my friends and acquaintances that they will like it in place of coffee, and receive benefit from its use. I have gained weight, can sleep and am not nervous."

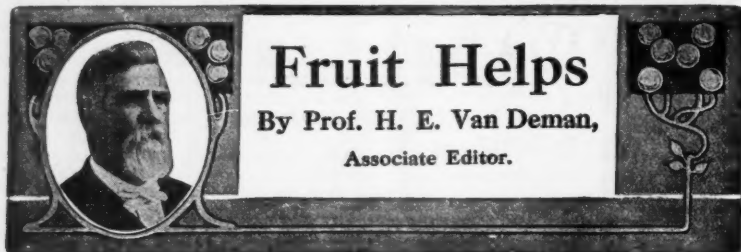
Name given by Postum Co., Battle Creek, Mich. Write for the little book, "The Road to Wellville."

Postum comes in two forms:

Regular Postum—must be well boiled.

Instant Postum is a soluble powder. A teaspoonful dissolves quickly in a cup of hot water and, with cream and sugar, makes a delicious beverage instantly. Grocers sell both kinds.

"There's a reason" for Postum.



Fruit Helps

By Prof. H. E. Van Deman,
Associate Editor.

Cutting and Treatment of Scions for Grafting, Etc.

Last month I gave something about the action of vegetable life during winter time and the subject is so large and so far reaching in its practical application in horticulture that it is well to consider some other phases of it.

A very practical matter that comes to us from the study of the winter conditions of vegetable life is propagation. We need to know what tends to the most successful rooting of cuttings and the union of grafts. We have been making cuttings of various things at various times and treating them in all sorts of ways. We have been cutting scions for grafting at all times from the falling of the leaves until the buds begin to swell in spring time, and storing them in various ways until the time came to set them in the stocks. What we ought to do to get the best results is what we should know and put in practice. There have been and are now wide differences of opinion as to both these methods of propagation. One of the best ways to become rightly informed is to ask the trees and plants. This means to try various times and ways of making the cuttings and scions and their after treatment. Here comes in the need of knowing the physiology of the wood to be used and the changes that take place in it. Nature has stored the young branches with starchy matter, taken from the air as carbon-dioxide by the leaves and transformed into starch in their cells before passing it into the circulating sap. This starchy matter is plant food and is meant for the sustenance of the flowers and young leaves in spring-time. We know that they will develop to a considerable degree even without any assistance from the tree or plant, if kept supplied with water from below. The water is needed to dissolve the plant food and a portion of it is exhaled or passed by the leaves into the air. That is a part of the vital action, just as breathing out the moist air from our lungs is a part of our vital action. It is one of the operations of life. No living thing, vegetable or animal, can exist without it.

But the starch must be turned to sugar before it is available for assimilation. This delicate and mysterious change is wrought within the living cells by vital action. Dead cells cannot do it. In the living tissues it goes on just as digesting food goes on, all unconsciously to us, in our stomachs, whether we are awake or sleep. And when the plants and trees are having their wintry sleep it takes place within them. There are needed certain conditions of temperature as well as of moisture to bring about the change from starch to sugar and they must be low rather than high. Therein lies the need of wintry weather. And right here we should pay fitting tribute to our scientists who have worked out by experiments certain theories that are as true as gospel, because they are deductions from facts and not mere conjectures.

Mr. F. V. Coville, chief botanist of the U. S. Department of Agriculture has been working for several years with the propagation of the blueberries, which as many of us know is a difficult matter to accomplish. But he has solved it practically. And in the course of his investigations and experiments he has learned that temperature before attempting to cause roots to strike is one of the critical points. To be brief, he finds that a temperature of about 35°+zero F. is the proper stage to cause the transformation of starch to sugar in the wood. At freezing or 32° it is too cold and at 40° and above is equally unfavorable. And the desired temperature may be either natural or artificial, provided the cuttings if in storage, are kept naturally moist. This is a most important fact to nurserymen and all horticulturists. It has a bearing on all propagations from wood, whether as cuttings or grafts and probably by buds to some extent. The recent discovery by Hale Harrison of Maryland that buds "take" much more readily after being in a refrigerator than before is evidence in this direction. It is altogether probable that cuttings and scions stored in warm rooms or cellars are thus kept from undergoing the internal transformation of their starch to sugar and with consequent and proportional failure or success when put to the test of rooting or uniting their cellular growth to stocks. The practical inference is, that we should wait until after there has been some cool

weather before cutting from the parent trees, luses or vines or place the scions in such cold and damp storage as will afford the proper conditions.

Mr. Coville in the course of his experiments in getting blueberry cuttings to strike root learned that they would not do so before a cold spell of weather to which the bushes had been exposed but rooted readily afterwards. By chemical tests he found that the starch did change to sugar in the scions.

In a recent letter to me he says:—"I find that blueberry cuttings taken in early December and kept till late in winter at a cold storage temperature of about 35° F. push their buds much more actively than outdoor cuttings taken in late winter, while cuttings taken in early December and kept at a growing temperature of 60° to 70° usually refuse to make any growth whatever from their buds."

On this general subject I find in the Gardener's Monthly for April 1873 an editorial by that eminent horticulturist, Thomas Meehan, who has long since left



"We haven't stolen any apples" is the title of the upper photograph. Children are ever interested in fruits. If there is a pile of apples or an apple tree on any portion of the farm rest assured that the children will find those attractive places. The lower photograph is that of Old Bill the family horse who being lonesome after confinement in his dark stable has thrust out his head to get a peek at the boys.

us and the magazine no longer published, that one of his correspondents asked: "Does there take place any chemical change in the sap of a scion remaining on the tree till mild winter or early spring; or is there any change in the physical condition between, say, December 1st and March 1st? Conversing with a man who has, probably, set more orchard grafts than any other man in the United States, he said twenty-five years of extensive experience had proved to him beyond doubt that scions cut in March, if not hurt by winter, were far better than those cut in early winter, no matter how well kept. Nurserymen think scions must be cut early. Spread a little ink, friend Meehan, on this subject." Here is his reply:—"We see here the importance of what is termed 'abstract science.' Those who believe that sap of trees remains frozen solid through the winter, of necessity, answer this question negatively—that is, that there is no change in the sap, for vital action cannot go on when the juices are frozen solid.

The change from starch to sugar is vital, not a chemical process, and the change of the starchy matter of the sugar maple in the fall to the saccharine juice of spring must be the result of vital action going on in the unfrozen juices during winter. We see therefore that there is vital action in vegetation during the winter, and thus understand that it is quite possible for some difference to be seen in the vitality of grafts as noticed by our correspondent. We do know from experience that it is so; but it is evident from the experience referred to, that it may not be altogether an illusion."

We, therefore, have evidence as far back as 1873 that thinking and practical people believed that there is vital action in trees and plants while in the dormant stage and no doubt there were many who observed the same thing long before that date. Surely, we ought to take note and make use of the information that comes directly from the experience of others who have gone deeply into this subject not only scientifically but in the most practical way.

There is one more fact that Mr. Coville learned by his investigations with the blueberry bushes, that direct sunlight is needed to develop starch in the buds and twigs. He cut twigs from bushes in open and in very shady places and found that those from the places where the sunlight was direct the starch was well developed in the twigs and those from the very shady places had but little. This made very material differences in the ability of the wood to push out shoots from their buds and it produced adventitious roots when put in the propagating beds.

From this we can learn one reason for cutting apple and other scions from the topmost and outermost branches of vigorous trees. They have had the advantage of large leaves to gather carbon dioxide from the air and abundant sunlight to assist in its transformation into starch and then stored in the twigs and buds. Scions from the interior of the tree are not nearly so well stored with nourishment because of lack of sunlight, as we can easily see. If only starchy scions are cut and then stored where they will be kept moist and the temperature fall to 35° F. or as near it as possible, the starch will turn to sugar and the best results should be obtained, whether they are used for grafts, or rooted cuttings.—H. E. Van Deman.

Answers to Inquiries.

Cold Storage.

Prof. Van Deman:—Do you think it will pay the fruit grower, locating near a large cold storage house, to place his first class apples in cold storage, provided he has several full carloads? Would it pay him if he has anything less than a full carload?

Reply: That would depend on several things but mostly on his good judgment as to the future state of the market. There are several factors that go to raise or lower the price and the price must rise to pay for the costs and deferred time of receiving the proceeds of sales. Usually the prices do raise considerably after the winter is well advanced, especially on the higher grades of apples. If it pays the dealers to buy at fair prices in the fall and store for later sales it would pay the grower to hold his apples but it does not always pay the dealers. It is a matter of judgment. This year the apple crop is rather light and good winter apples will be worth good money next spring. But nothing but the best keepers and of the best grades, well packed and hustled from the trees to storage should hold.

Fall Planting.

Prof. Van Deman:—What advice can you give those who plant vines, shrubs and trees in the fall?

Reply: Everything that is planted in the fall should be set with the greatest care. The soil should be packed as firmly about their roots as it is possible, and then cover the surface with loose soil and with mulch of some kind if it can be done at reasonable cost. This will give the roots good opportunity to callos over the wounds and start new rootlets if the weather is mild, and in the spring they will start into growth almost as if they had not been transplanted. Where the soil is dry and the winters are very severe it is not advisable to plant in the fall but it is better to bury the trees, vines, etc., completely under the ground and leave them there until early spring time, when the planting can be done in good time for early growth.

Home Supply of Fruit.

Prof. Van Deman:—What percentage or portion of the rural residents of this country, that is the farmers and villagers, do you estimate have a reasonable home supply of the various small fruits, such as strawberries, blackberries, cur-

rants, grapes and cherries, and of the large fruits, such as plums, pears, apples, peaches and quinces? As I drive through the country I find many farms that do not have even a fairly good supply of these fruits for home consumption.

Reply: In the course of my travels I have sometimes taken pains to count the farms that were supplied and those that were not with berries, grapes and other small fruits. Except in such places as western New York and the rich fruit grown valleys of the southwest there was not one fourth of them that had enough for home use, and even then there was far less than was needed. The home fruit supply should be the first thought of the country dweller, even if he is not sure of a long or permanent residence there. These things grow up so quickly that fruit can be had for the table the same year they are planted in some cases. This year I know of a friend who planted a lot of gooseberry bushes and from them he gathered enough to make a lot of jelly, which is now stored for winter use.

Walnut Inquiry.

Prof. Van Deman:—I have a 40-acre farm in Ottawa County, Michigan, five miles east of Grand Haven, near the Grand river. The soil is a sandy loam with a clay subsoil. Peach trees have grown very successfully on this place. As the peach trees are old I am contemplating to remove them and plant some northern grown nut trees for profit.

I would like to hear what you know about nut culture for profit. How many years does it take for the following nut trees to bear so as to get at least one dollar returns per tree. Northern grown budded Indiana Pecan, grafted Paragon chestnut and Seedling Pomeroy walnut trees. These trees to be planted when two years old and the ground to be kept cultivated. Where can I buy walnut trees grafted on black walnut? Luther Burbank states that grafted walnut trees bear earlier and larger nuts than the seedlings which are unreliable as to quantity and quality.

I am sorry not to see any nut tree ads. in the Fruit Grower. I already have catalogs from two nurseries but they do not state that they have any grafted walnut trees for sale. They do sell walnut trees two years old but nothing is said about grafted trees so I assume that they only sell seedling trees.

I am a city born and raised lad of thirty years of age and am anxious to be a fruit and nut culturist. I keep two good thoroughbred Guernsey cows, about 500 chickens and grow apples, nuts, a little corn and alfalfa.

Last spring I set out seven acres of Winter Banana apples and a few Canada Reds budded on Gideon stock. Next spring I am contemplating to plant either apple or nut trees.—John H. Dreffin, Ill.

Reply:—It is almost certain that the Persian walnut will succeed in this locality and soil mentioned. There are a very few trees now growing in southern Michigan and while they are mere experiments that have been made at random they go to prove that intelligent efforts would show up much better. It would be wise to remove the old peach trees and plant apple and other kinds of fruit trees and at least some nut trees. Walnuts should not be set closer than 50 feet apart and more is better for they grow to large size and very old age. This could be done and Wealthy apple trees or others that would bear early between them, so as to profitably occupy the space until the walnut trees would need all the room. I have seen this done with good success in Oregon, where prune trees were used as fillers. Montmorency cherry trees would be very good for this purpose.

There are very few grafted walnut trees to be had of the eastern nurseries and the few that are grown on native walnut roots are sold at high prices, yet they are worth much more than seedlings in my opinion. Those who do have them for sale usually have more orders in advance of their supply of trees than they can fill. They begin to bear at about five years from planting.

The chestnut is a nut that may be grown in southern Michigan and I have seen a few trees there doing very well. They will succeed on poorer land than the walnut but good soil is best for both. The Paragon which is of European parentage is the common variety offered for sale and it is good but not equal to the Rochester, which is pure American and of more vigorous growth and far better quality of nut. But it does not bear as early as the Paragon, which is apt to have nuts on grafted trees a year or two after planting.

As to the hardy pecans, they will endure the climate of southern Michigan but I greatly doubt if the nuts will mature there. It is very certain that the southern kinds such as the Stuart, Money-maker, Wanture, etc., will not mature there and the trees are likely to be tender.

Storage Cave for Apples.

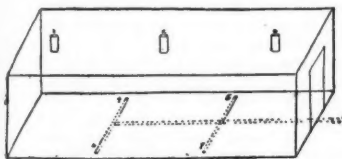
By D. E. Lewis of the Kansas Experiment Station.

In the fall of 1911 the horticultural department of the Kansas station constructed an outdoor cellar for the storage of fruit, and in selecting the site for the storage cave, and also in its construction, an effort was made to provide for good ventilation and a constant temperature. A northeast slope, having a fall of about two feet in ten, was available, and offered an advantage both in construction and in temperature. Excavation showed a ledge of rock at such a depth that it would furnish a solid foundation, and was used for this purpose, a rather thin coating of concrete being run over this in order to form a smooth floor and to exclude moisture. Since the completion of the cave, it seems that the rock ledge upon which the cave was constructed offers a disadvantage, as the lack of subsoil drainage causes wet soil in contact with the cave walls, and under these conditions enough moisture passes through the concrete to cause the formation of drops of water on the interior of the walls.

Storage experiments have established the fact that good ventilation, especially for a short period following the placing of fruit in the storage room, is one of the most important factors governing its keeping. With this in mind, a system of ventilation was planned which would allow for ample change of air during the time it was most needed, the intention being to regulate the ventilators according to the needs of the storage room.

An eight-inch tile was placed under the floor of the cave and laid as for ordinary drainage, opening at a distance of fifty feet from the storage room. This exterior opening was covered with a heavy wire screen, to prevent small animals from entering. This tile was placed about two feet under-ground and had sufficient slope to act as a drain from the cave as well as a ventilator. Under the cave floor the eight-inch tile was connected with two four-inch cross tile. By means of elbows, these four-inch tiles were brought to the surface of the cave floor—making four openings located seven and one-half feet from the ends of the cave and two feet from the side walls. In order to complete the ventilation, three ten-inch tiles were imbedded, flange down, in the roof. Covers were provided for these tiles by nailing boards together "A" shaped, and leaving the ends open. In this way water was excluded, but the passage of air was not materially lessened. One tile was placed in the center of the roof, and the others three feet from either end, all being located in a line dividing the width into equal parts. By this arrangement the upper ventilators were placed in position to draw the air entering below, through the entire area of the storage room. (See drawing.) A good draft was secured at all times, starting immediately upon the closing of the cave door, and being especially strong when the temperature of the cave was above that of the air outside.

The following drawing indicates the manner of locating the ventilators.



The Ventilators and Drainage.

Nos. 1, 2 and 3 are the upper ventilators, and 4, 5, 6 and 7 the position of the lower ventilators on the floor of the cave. Figure 8 is the eight-inch tile connected with the lower ventilators.

The cave was made twenty-four feet long, twelve feet six inches wide, and seven feet high, inside measurements. The side walls were eight inches in thickness, of concrete made of one part cement, three parts sand and five parts crushed stone. The inside of these walls received a finish coat of one-half inch thick of one part cement and one part screened sand and troweled smooth with a steel trowel.

The slab forming the top of the cave was made eight and one-half inches in thickness, of concrete made of one part cement, two parts sand and four parts of crushed stone, reinforced with five-eighths inch square twist bars, spaced four and one-half inches on the center, and imbedded three-fourths of an inch above the bottom of the slab. The floor was made three and one-half inches in thickness as follows: Base, three inches in thickness made of one part cement to four parts of sand, and the top coat one-half inch in thickness, made of one part of cement and one part of screened sand, and troweled smooth with a steel trowel.

The top contained the three tile ventilators and the bottom four ventilators—previously described—and the front contained a door four by six feet. This door was made in two sections, having a

dead air space of four inches between them. Each section was made of two thicknesses of flooring nailed together at an oblique angle, after the manner of an ice-house door.

This cave was constructed by contract, and cost, complete, not including excavation, approximately \$300. Where sand and stone could be easily obtained a fruit grower could probably construct a similar cave for a less price.

The apples were picked and packed as they ripened, and for want of a better storage, were placed in tents in the orchard. Hay and straw were used for insulation, but it was impossible to attain anything approaching a storage temperature. Unseasonably cold weather during the middle of the month made it necessary to use stoves in the tents to prevent the fruit from freezing. At other times the temperature was considerably too high. Under these unfavorable conditions occasional instances of soft rots were observed being so severe in some cases that the box had to be opened and the fruit re-sorted.



The Completed Cave.

The prediction of near zero weather made it seem best to place the fruit in the cave the last of November even though the concrete was not yet entirely cured. The temperature at that time within the cave was about 40 degrees F. and was gradually lowered during the next four weeks until a storage temperature of 32 degrees F. was reached and retained with little variation the remainder of the season.

The fruit was frequently examined during the months of December, January, February and March, and was found to be in almost identically the same condition as when placed in storage. The moisture from the green cement caused a slight molding of the boxes near the walls, but even in these boxes the fruit did not decay. When such a box was opened the apples had a musty smell and taste, but after standing in the open air for a time, this disagreeable odor was little noticed.

The last of the fruit was removed and sold during the latter part of March and its condition was such that few boxes required re-sorting. Approximately eight hundred bushels had been carried through the winter with less than five per cent. loss, a remarkable result considering the condition of the fruit at the time of storage.

Orchard Methods in Holland.

"We handle our trees in Holland a little different than you do here in America," said G. VanDyke, a Holland tree expert, who has been looking over the orchards in Michigan, as reported by the Fruit Journal and Western Farmer.

"Your horticulturalists aim to head their trees from two to three feet, while we even head our young apple trees five feet high. We leave three main branches and our tree architecture tends to spread it and at the same time keep it low. We set out trees 5 and 6 years of age so we can expect to secure a limited crop the following year. We hasten productivity because of the high value of land and the demand that it should produce to its capacity year after year. Between our trees we set short lived trees or small fruits, so when our apple trees attain their maturity the smaller ones are past the age of usefulness. We crop between trees. Beans are our main crop. We use as cover crop 'spardie,' which looks more like the foliage of the pine tree than anything I see in America. It grows about a foot high and is a very good mulch crop. Our tendency in handling our trees is to spread them out. We try to have them clear the ground so we can crop close to the trees and at the same time head them so low that most of the fruit can be picked by standing on a four or five-foot ladder.

"Our spraying methods differ radically from those in America. In fact we do not employ what American horticulturalists would call methods. We have the San Jose scale, which we fight with lime. We sprinkle lime on the trees three times a year—once when the leaves start, again in July, and still again about this time of year. Our other troubles are peculiar to our country. One of our destructive enemies is known in our country as 'Meeldow.' It attacks the

small fruits, such as gooseberries and currants, and the foliage appears as though covered with lime. In several days the branches are completely stripped of leaves.

"In Holland we raise apples, strawberries, gooseberries and currants. Grapes are only raised in the hothouse and we produce but very few peaches. The country is not sufficiently warm for the proper ripening of grapes. Southern France and Germany are known as grape countries. Also Italy is known the world over, as well as Spain, for their grape products.

"The varieties of apples we have in Holland which are also produced in America are Red Astrakhan, Russet, Crimson, Golden and Red Beitingheimer. Our orchards are small. The usual size is two or three acres. Frequently some are as large as eight or ten acres, but we consider those fellows are doing business on a big scale. Our markets are convenient. Amsterdam is our greatest local market, while our apples are sought in England particularly. Our prices are generally better than they are in America, and we aim to supply the highest possible quality. One thing we do in Holland which is not done in America, and that is to prune the trees annually. In this way we eliminate all but the branches which will produce the most healthy and thrifty fruit."

Fruit Tree Production in New York State.

Laws for the protection of fruit growers in the State of New York have been passed and are enforceable by the Department of Agriculture. Nurserymen can not ship any nursery stock unless they have attached to each package a copy of a valid certificate of inspection issued to them by the Commissioner of Agriculture of the State. The inspection of the nurseries in the State involves almost the constant attention of a large number of inspectors. The nurserymen of the State are not growing an excess over their annual average for the past few years, but last year's reports show the amount growing as follows: 14,000,000 apple, 7,800,000 pear, 8,600,000 plum, 10,700,000 cherry, 9,000,000 peach, 1,500,000 quince, 1,170,000 apricot, 7,000,000 currant, 16,000,000 grape vines, 20 acres of small fruits and millions of ornamental trees and shrubs. Over 550 certificates were issued in 1911 on nurseries embracing 9,121 acres of land and containing nearly 100,000,000 trees and plants.

Importers and those who bring nursery stock into the State report the facts to the Commissioner of Agriculture who causes inspection to be made at the point of destination. No nursery stock can be planted or distributed until authority is given. This authority is withheld until inspectors report apparent freedom from insect pests or fungus diseases. The importance of this requirement of the law is shown by the results in the past three years during which time an annual average of 10,000 shipments, embracing 30,000 boxes and packages and containing over 17,000,000 trees and plants, have been carefully inspected at points of destination within the State.

Another Big Crop Year.

The banner crop year in the history of the country was 1912. It is too much to expect that such a year will be followed by another to equal or surpass it, but the annual crop report of the Continental and Commercial National bank of Chicago indicates that 1913 crops will closely approximate those of 1912 and even surpass them in some products.

The aggregate indicated wheat yield of the year is 739,000,000 bushels, against 700,000,000 bushels last year. Our exports are likely to be 170,000,000 bushels this year, against 143,000,000 bushels last year, largely, because there still remain 30,000,000 bushels of last year's crop in stock. This is over one-fourth of the world's total wheat exports, which last year were 660,000,000 bushels. Based upon current prices, our wheat exports for the year will bring us \$155,000,000, while the total value of the crop will be about \$600,000,000.

The largest domestic crop is corn. This year the crop, while considerably above the average, does not equal that of 1912. The general average for the past ten years is 2,670,000,000 bushels. The yield this year is estimated at 2,800,000,000 bushels, against the 1912 yield of 3,125,000,000. The value of this year's yield will be between \$1,500,000,000 and \$1,750,000,000.

There are two kinds of optimists: One thinks everything is for the best, and lets it go at that. The other thinks everything ought to be for the best, and pitches in to make it so.

The late Dr. Knapp said: "Preach back to the farm all you want. But just show the boy how he can make more money on the farm than he can by going to the city and you won't do any more preaching."

A Visit to Mr. Jos. Tweedle's Woodburn Orchard.

The orchard contains about 12 acres and slightly over 500 trees. They are carrying a load of at least four barrels to the tree and it is a very even crop of over 2,000 barrels, says the Fruit Grower and Farmer.

Practically all are Spys and the tops have been cut right down so as to facilitate the operations of spraying, picking, etc. This orchard is a beautiful sight at present, the rich color of the apples contrasting with the vigorous foliage.

No worms are there, at least we could not find any, although we searched for them carefully enough, nor is there any scab to signify, although here and there under the lower branches, a slight touch of scab is seen, to indicate what might have been, had the orchard been at all neglected.

2,000 barrels of beautiful Spys in one orchard of moderate size is something to be desired in this year of 1913, and no unprofitable possession.

The trees are nicely pruned, the tops having been cut right down and the heads left open. No trouble for any ordinary picker to make big wages here, indeed, I almost felt inclined to hire out as a picker myself this fall and enquired of the owner how much he would give me per day. "I pay by the barrel," said he, "and a man can earn good money picking this crop."

No apples lie on the ground, which is carpeted with a nice even growth of chickweed. The trees almost touch one another now and it was with considerable difficulty that we crossed and re-crossed through the orchard.

We examined some of the trees where big limbs had been sawn off and painted with gas tar, which seems to be an excellent thing to use for this purpose, as it protects from germs and causes the wounds to rapidly heal over.

This orchard is a beautiful sight and great credit is due the owner for the splendid and remunerative condition it is in.

Before Mr. Tweedle took this orchard over it had never grown any crop to speak of. Since then—some seven or eight years ago—it has borne some remarkably fine crops, the greatest of which was four years ago, when it bore a crop of over 3,000 barrels which sold for nearly \$7,000.

"I believe in a spade," said Emerson, "and an acre of ground. Whoso cuts a straight path to his own living by the help of God, in the sun and rain and sprouting grain, seems to me to be a universal working man. He solves the problem of life, not for one, but for all men of sound body." Herein is the keynote of the platform for the men and women who are carrying on the world's work.

Breakfast

Sunshine

Post Toasties

and Cream

There's a delicious smack in these crisp, appetizing bits of toasted corn that brings brightness and good cheer to many and many a breakfast table.

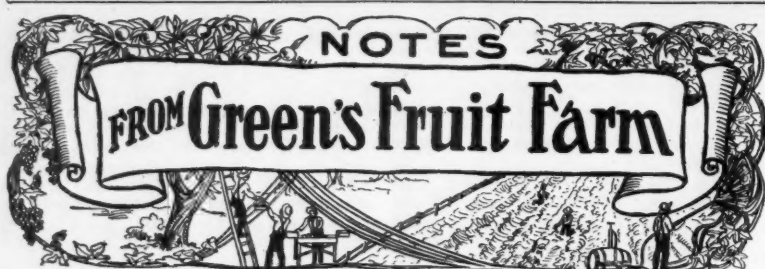
Toasties are untouched by hand in making; and come in tightly sealed packages—clean and sweet—ready to eat with cream and sugar.

Wholesome

Nourishing

Easy to Serve

Sold by grocers everywhere.



Damson Plums. Reply by Superintendent of Green's Fruit Farm:—Trees of French Damson plum are not much grown in western New York nurseries or elsewhere so far as I know, thus they are not offered generally in nurserymen's catalogs. At Green's Fruit Farm we have both the Shropshire and French prune in fruiting side by side. Both varieties are remarkably productive, fruiting annually. The French prune is considerably larger than Shropshire but the tree is not so good a grower as Shropshire. Both varieties are remarkably productive.

Plums and Prunes.

The plum and prune trees in the hen yards are again the wonder of every passerby. Every limb bending to the ground with its load of large fruit. One tree in the hen yards yields more and better fruit and pays better than ten on the outside but all plum and prune trees are yielding a good crop this season, and the fruit is in good demand, in the towns and villages plums selling readily at \$1.00 per bushel and prunes at \$1.50. Considering the small space occupied, the little labor attached to plum culture, the ease with which the crop is harvested this is a good price.

Abundance, Burbank, Bradshaw and York State prune are our main marked varieties but we are fruiting Apple, Climax, Coes Golden, Damsons, Fellemburg, Grand Duke, Green Gage, Gem, Hale, Imperial Gage, Lombard, Monarch, Moores Arctic, October Purple, Ogon, Ponds Seedling, Red June, Reine Claude, Shippers Pride, Thanksgiving Prune, Wickson, Yellow Egg and several others.—E. H. B.

The largest white peach I ever saw, round measure nine inches, is a variety named the "Opulent." It came to us some twelve years ago and there are two or three bearing trees on the place. It is rich, juicy and free stone. Buds from Luther Burbank summer of 1901. The best quality plum on the nursery is the (like green gage) variety buds of which you sent up from the tree found growing near the back door at Highland Ave. We call it the Highland! Two trees in bearing. The richest peach in color and quality grown here is undoubtedly the Niagara. We are propping our Baldwin and Blenheim Pippin trees, also late pears today. We have a lot of B de Anjou and B Bose pear to pick. Greens New Blackberry (the variety found by E. H. B. in 1892) although cannot be considered as hardy as Eldorado or Snyder proves itself to be a far better variety to grow under adverse circumstances. This season again plants in old sod covered uncultivated land bore excellent fruit, large berries practically coreless. Owing to failure of young plants (cuttings) two years ago we run out of plants.

The Climax is the most showy of the Japan plums. It does not set fruit as thickly as other Japans, comes early into bearing fruit, and seems to me to be a profitable variety to plant compared with others that is for market—Large to, very large.—E. H. Burson.

Dehorning Unfruitful Pear Trees.

Ten years ago about one hundred B de Anjou Standard pear trees were set out alongside the creek at Green's Fruit Farm. No cultivation could be given. The trees grew well, looked healthy, and blossomed more or less for the last six years, but produced little if any fruit. Last winter three of these trees were two thirds dehorned for the purpose of furnishing scions for buds and today these three trees are a sight to see, every limb or part of limb that was left is loaded to the limit. There are more pears on these three trees than on the next fifty. A like effect of dehorning is noted also on several large Seckel.—E. H. B.

Note by Editor: This confirms the theory of Thomas Bell, a large pear grower of Rochester, who prunes off each winter or spring the larger part of the new growth of the previous season from the standard pear trees. By this method Mr. Bell gets enormous crops of fine fruit. If you should pass by his orchard you would find pear trees twenty years old standing not over 10 or 12 feet high, looking more like dwarf trees than standards pear trees. Therefore it seems as though we could state without hesitation that the cutting off of the last season's growth from standard pear trees each season

tends to make the trees more productive than they otherwise would have been. We have often called attention to the above method. How many of our readers have been benefitted by it?

Blowing Out Rocks at Green's Fruit Farm.

"We are blowing out fifty tons of rock today at the new farm which you purchased last spring."

The above is the report I received from Green's Fruit Farm today. The farm spoken of has been in cultivation nearly 100 years. The owners have been men of considerable wealth who have built on this farm an elegant house and large and expensive barns and other outbuildings. But these men of the past instead of digging or blasting the rocks on the farm have plowed around them and bumped their plows against them year after year without having sufficient enterprise to clear the ground. Now after the lapse of a long period of time and perhaps the breaking of many farm tools the rocks are removed after they have done a lot of injury.

The proper thought of these men of the past should have been that the rocks must be removed sometime, therefore the sooner the better. I have not owned the farm yet a year and I am taking out these rocks.

This new farm is not a rocky farm. In each field there may be from six to a dozen rocks on the average or on some of the fields there may not be any rocks at all. They are simply boulders left there in the drifting of the ice age. These rocks are probably brought down from the far north, Alaska or Labrador. Much sediment came down with these rocks, such as gravel, clay and sand, and this is one reason why such soil as this farm is composed of is remarkably fertile.

As I have reported before, 80 tons of hay were cut from this farm, 140 bushels of wheat, and about 500 bushels of oats, the entire crops being valued at about \$1500, and yet last year this farm was leased at a cash rent of \$450. From this experience do not tell me that farming does not pay. I expect to make every field of this farm richer every year I own it. I hope to make the farm far more valuable by planting upon it orchards of apple, peach, pear, plum, and some of the small fruits such as grape vines. I consider a good farm rightly located in the fruit belt of this state a good and safe investment for money.

A Visit to Green's Fruit Farm.

By C. A. Green.

This is the season when many trees and vines can be seen bearing fruit at Green's Fruit Farm, therefore I have just returned from a visit to that place.

It is with great pleasure that I rove around among the specimen fruit trees and vineyard, witnessing the heavy fruiting of trees and vines that I have planted with my own hands and many that have been planted by my assistants. Here are over 100 varieties of apples. You might think that much territory would be necessary for the planting of so many varieties of apples, but such is not the case. These trees are clipped of the young branches each season for propagation, thus the trees are not allowed to become very tall or widespreading. These specimen trees are planted in rows about ten feet apart. The trees might be planted even much closer than this and still bear fine fruit for many years, provided there is ample room on each side of each row to let in the sunshine and air.

I often wonder that readers of Green's Fruit Grower and rural people generally do not have an experiment row of apple trees on their farms since it could be secured at such little cost and would be such an attraction not only for the owners of the place but for others in that neighborhood. A collection of 100 varieties of apples would be a phenomenon in that locality. People would hear of it and you would be appealed to constantly to supply varieties for the various fairs, town, county or state. You would find your home far more attractive with this collection of rare apples. You would soon become an expert in detecting errors in names of varieties and in distinguishing one variety from another. You could learn what varieties succeed on your place by having so large a number in fruit.

In a specimen row of trees such as I have suggested there should be a plain

label a foot or two long attached to each tree, painted white and lettered black, so that the most casual visitor could learn what variety the tree represented.

Last year our specimen tree of Shiasse Beauty, a seedling from Fameuse or Snow apple, bore the heaviest crop of almost absolutely perfect specimens of apples I have ever seen on a tree. Several bushels of apples were placed in my cellar and enjoyed by myself, my family and friends all through the winter. This year this tree is bearing fruit but not so heavily as last year. McIntosh is another seedling of Fameuse and is more highly prized by Prof. Van Deman than any of the other seedlings of this famous apple. Hubbardston apple was bearing abundantly. This is a large reddish apple of attractive quality. Its foliage is remarkably leathery and full of vitality, withstanding attacks of insects and fungus where other varieties may suffer. I wonder more people do not plant this valuable apple.

Here is the Yellow Transparent, though its season of ripening is about past. Its skin is almost as white and delicate as a lady's white kid glove. It has a long stem. Its flesh is tender and delicious. A friend invited me to his bank recently to inspect a beautiful apple which he prized highly. I found it to be the Yellow Transparent, which is a hardy apple enduring far north.

I found my assistants getting together a collection of 40 varieties of apples for exhibition at the New York State Fair. Each year we have sent apples to the State Fair at Syracuse from our specimen trees.

I was interested in a row of specimen standard pear trees. Here were some varieties like Dr. Hovey and Brandywine, which I had not seen before in fruit. The Hovey pear is a small sized pear, very



Photograph of a young tree of Yellow Transparent apple. The second year planted this tree bore a dozen nice apples, uniform in size, about three inches in diameter. By Stephen Butsko of Dutchess Co., N. Y.

sweet, something like Seckel but larger. Brandywine is larger than Hovey, a deep yellow and of the highest quality. It is an early pear, thus I found but few upon the tree, although the ground was covered with those blown off by the wind. It resembles somewhat the Bosc in quality. Trees of the Bosc pear were crammed full of fruit. It seemed as though there was not room for more fruit upon these trees, the branches being bent over seriously, and still the fruit was not fully grown. This is one of the finest pears in quality. It is also of beautiful shape with a long slim neck and long stem. Anyone having the Bosc pear to sell should take pains to have each pear wrapped in paper and packed in boxes containing not over a bushel. Then these boxes should be sent to some fancy city market. The grower should receive almost double price for Bosc pears over that of ordinary varieties. The fruit of the Bosc pear was uniformly fair with few culls. So far as I can see as many bushels of Bosc can be grown upon an acre as Bartlett. The Bosc is far superior to the Bartlett in quality and in beauty. The Bosc is a late fall pear ripening about with Anjou.

Trees of the Anjou pear were bearing abundantly as were the Seckel. Here is another suggestion to the fruit lover, which is to have a specimen row of pear trees across a field or across the garden. Even if the trees are planted as closely together as five or six feet they will bear fruit for many years and be an interesting feature of your place.

I never can get by the big chestnut trees which I planted nearly forty years ago at Green's Fruit Farm and which are now nearly a foot through at the trunk and stand about 20 feet high, all well filled with chestnuts. And yet Green's Fruit Farm is not chestnut land. Chest-

nuts seem to prefer a sandy soil but the soil here is more of a clayey loamy nature, yet the chestnut trees grow rapidly and are perfectly healthy and fruitful. The chestnut trees are beautiful in shape, beautiful in foliage and in blossom, and beautiful when loaded with the chestnut burrs which contain the fruit. These trees are not improved varieties but are simply seedlings, the same as those you find growing wild all over the country.

Now we come to a little elevation on a hillside and hilltop where is our specimen grape vineyard. Here I can see the different varieties growing side by side and can learn of the vigor of growth and productiveness of different varieties. Here is the Delaware of moderate growth scarcely covering the trellis, the Diamond somewhat more vigorous, and others of the Concord type such as Worden, Moore's Early, Campbell's Early and Niagara, exceedingly vigorous, covering every part of the trellis and heavily loaded with fruit.

This is a great plum year. Seemingly every plum tree on the place is heavily laden with fruit. Some of the plum trees are planted in the henry. Do not forget that there is no fruit tree so well adapted to the henry as the plum. From three plum trees located in the henry, only four years planted, my foreman informs me he picked fifty-one peach baskets of the most beautiful plums. The Thanksgiving prune is in full fruit this year on young trees. This is of medium size, of fine quality, one peculiarity of it being that the fruit will keep until Thanksgiving time after being picked in October. It has no disposition to rot but withers a little and retains its quality until Thanksgiving time.

Brooms in an Apple Tree.

Casually looking out of my window from a distant part of my bedroom one morning I asked my wife, "What is the object in the Sweet Bough apple tree growing near the line of our neighbor's boundary? Is it a caterpillar's nest?" "No," replied my wife. "That is a broom."

"What are they doing with a broom in an apple tree?" I asked.

"The neighbor's children have used the broom for beating off apples. Some of the apples are so high they cannot reach them with the broom handle, therefore they have thrown the broom into the tree top."

This incident reminds me of the clubs which I have seen in Early Harvest apple trees on the old farm where I was born. These incidents teach us what we should have known, that children are fond of fruit. While grown-up people enjoy eating fruit it is my opinion that they do not enjoy it and do not hanker after it as do the children. This Sweet Bough apple tree in front of my bedroom window is an attractive object to hundreds of boys who come into my place to deliver packages or messages. They seldom leave without having filled their pockets with apples.

This is the apple tree which I preserved from destruction when I was compelled to regrade the land on which it stood, filling in there with three feet of subsoil from the foundation of a neighboring building. In order to protect the roots from being smothered by this heavy covering of earth I placed four six-inch sewer tile upright at intervals six feet from the trunk of the tree. This seemed to give the roots an opportunity to send out new roots and make new conditions which preserved the life of the tree.—C. A. Green.

LIME FOR FRUIT TREES.

Finds It Produces a Stocky Growth.

To get the best crop of any fruit or grain there must be the best growth of tree or plant, and this is what lime provides. Dr. E. E. Hilgard, director of the California station, a high authority, says that limestone soils produce a stocky growth of trees so noticeable that one can tell a lime stone section by that character of tree growth.

Observation has shown that lime gives a very favorable root growth—a well-balanced plant, top with roots—and that produces perfection of flowering and fruiting. A larger quantity and a better quality are both distinctly noticeable in lime fertilization. Hilgard says also that lime improves the quality of fruit; grapes grown with it are notably sweeter. The sugar beet industry, which is regulated by scientific tests of quality, is most successful on limestone soils.

As lime is not very expensive, the right thing for every fruit grower to do is to make some comparative tests with it, bearing in mind that a true carbonate form can be applied at any season and will not injure either plants or organic matter by direct contact. In fact, the carbonate mixed with manure or commercial fertilizers enhances the value without waste of fertilizer elements.—American Agriculturist.

Fruit Growing in Wayne County, N. Y.

Written for Green's Fruit Grower by a Large and Successful Orchardist.

Soil adapted to diversified crops and proximity to markets are two factors of the greatest importance to any agricultural community. In Wayne County, N. Y., these factors are expanded into a relationship that is developing the county with astonishing rapidity. The New York fruit belt, fringing all of Lake Ontario's south shore, here blossoms with an almost unbroken expanse. No fruit worth eating, native to the climate, will fail to reach its full perfection here. Wayne orchards are no mistake. Now, as years ago, many are decrying the increase in the acreage yet at no time in the history of fruiting has the aggregate acreage of young orchards been as high as now. Take peaches for instance, in Williamson there are probably somewhere between five and six hundred acres in bearing and about 2,000 acres "coming on." It would be difficult to ascertain the extent of young apple orchards in the county, for in all directions the farmers are going into trees. And yet, withal in spite of claims that growers throughout the country are getting in too deep on the fruit question, if census statistics are reliable they indicate that there has been an actual shrinkage in the total contents of American orchards during the last twenty years.

The Wayne belt lies principally along the lake, including the north tier towns of Ontario, Sodus, Wolcott, Williamson and Huron, with Rose, Butler and Marion of the center tier added. In this belt the beneficent influence of the lake is of the greatest value, producing an immunity from frosts until late in the season and

come in from Pennsylvania and each year seems to add to the number from this state seeking employment. The canneries open on rhubarb or spinach in the spring and continue until the apple season closes. The fruit is tinned in gallon cans and shipped in great quantities to the north west.

There are about a half dozen large cold storage plants in the county and these have been of inestimable service to both growers and dealers. Two plants are now in process of erection and others have been projected for the future.

No equal area in the world possesses so many evaporators for apples as are found in this section. They play a most important part in the disposition of the apple crop. Sodus has three large packing houses in its largest village. At this place are located the principal offices of the Western New York Evaporated Fruit Dealers' Association. Efforts are being made to establish a uniform ruling on the moisture content permitted in the dried product that will enable the evaporated fruit to obtain markets in fields where now the fruit does not stand up, from excessive moisture. The Association is working with this end in view, believing that in the end the producer will reap greater benefits from more thorough dehydrating in enlarged markets. It is said there are even parts of our own country where the fruit as now prepared will not stand up a reasonable time. The permitted amount of moisture is now twenty-seven per cent., giving about seven pounds to the bushel. With five pounds of dried fruit to the bushel it is thought the product would hold good in any climate.—Alvah H. Pulver, Wayne Co., N. Y.



Scene at a Wayne County evaporator. There are hundreds of such evaporators near Rochester, N. Y., many of them showing larger piles of fruit than this photograph.

holding back the buds in the spring until safe temperatures are the order. Often disastrous sweeps of temperature work havoc to the crops inland while the counties fronting the lake escape with but minor loss.

In addition to the fruit interests there are vast deposits of muck soil in the county and these form the newer branch of agriculture from which some most successful crops have been raised. In Sodus, the largest town in the county, is the largest acreage of muck, fitted and unfitted. Some idea of the importance of the fruit and muck industry is given when it is realized that two towns, Sodus and Williamson, released last year over 5,000 car loads of fruit and produce. Williamson in detail shipped as follows: Apples, 954 cars; onions, 407; celery, 308; peaches, 220; evaporated apples, 191; waste, 41; canned fruit, 74; cabbage, 23; carrots, 38; berries, 11; lettuce, 24; apple chops, 23; miscellaneous, 62.

Sodus shipped during the year, 2643 cars of fruit and produce. Of this 373 cars of evaporated apples were forwarded from one of the town's five shipping points. Over seven train loads of thirty cars each. A record equalled by no town in the county. Over 250 cars of fruit and produce were in common storage at the beginning of the year in Sodus village, Rose, Marion, Wolcott and Ontario, also made heavy contributions to the Wayne output for 1912.

One actually needs to tour the county to see the fruit farms and the allied industries at their best. Practically all of the lake portion receives its sustenance from the fruit and vegetable industry. Dotted all about the belt are factories, here one for the manufacture of bushel crates, and there a basket factory, while barrel factories are located in each town and then often supplies are brought in by rail from distant points. Every town in the north tier has its canning factory. Williamson and Marion each have two. The canneries employ all the available help in the vicinity, conditions often compelling the management to go outside for help. Of late years a great many have

Size Versus Quality.

My experience is that if you want the highest quality in peaches you should buy the largest specimens. I have found on the peach trees at Green's Fruit Farm the largest specimens most delicious and juicy, but when I came to the smaller inferior specimens of peaches on the same tree I have often found them deficient in flavor and somewhat bitter. Therefore never buy small peaches if you want peaches of good quality.

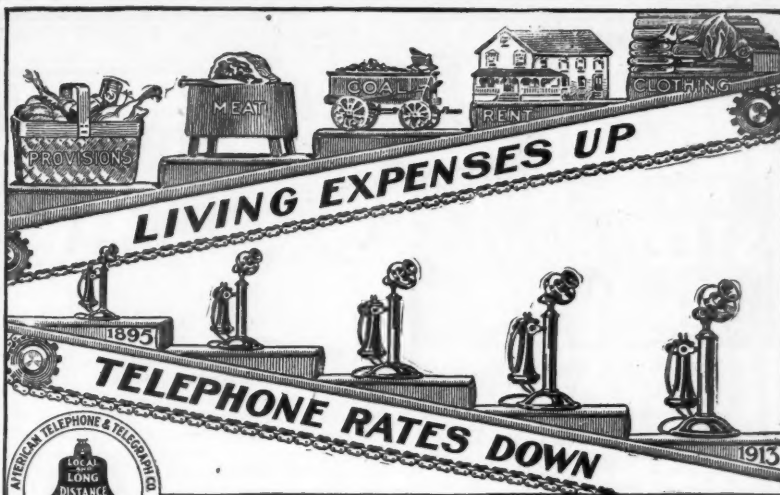
In pears the contrary would seem to be true. This season I have tested with great care Bartlett pears grown along the fence row where they received no cultivation and where the pears were of small size as compared with those pears grown under high cultivation, which were double the size of those grown in the fence rows. I had no difficulty in deciding that the small Bartlett pears were of better quality than the largest ones, and yet I would not want to say that the meanest, scrubbiest, crookedest, little Bartlett pears are equal in quality to those of larger size.

My opinion is that the large apples of a tree are of better quality than those of medium or small size as a rule. It would seem with apples that the larger ones are fully developed, whereas often the smallest specimens are not developed and seem never to ripen up so satisfactorily as the larger specimens.

A small lemon, orange, or grape fruit, or a small grape, is generally of as good quality as the larger specimens. I cannot remember ever having heard this question raised before as to the difference in quality between large and small size fruits. My opinion is that small strawberries picked from the same vines as the larger ones are of better quality than the large berries.

Retaliation — Father — You have no sense! I'm going to cut you off with a million!

Son — If you do, I'll disgrace the family by riding around in a second-hand auto. — New York Globe.



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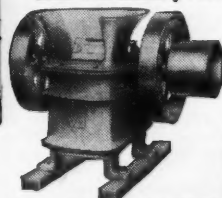
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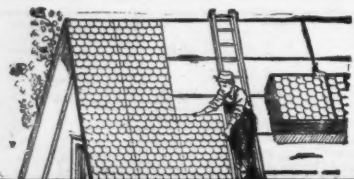


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Strawberry Notes.

A strawberry bed should be renewed just as soon after the last picking as possible. Two years ago I waited till after wheat harvest to renew mine. The intervening time was sufficient to allow the weeds to mature, and the plants set did not have time to attain a good growth before the cold weather set in. Instead of burning the patch over I now rake the cutting for hay since strawberry plants make very good hay, especially when mixed with grasses.

How to Keep Fresh Grapes.

Select nice large bunches of grapes, carefully picking out any that are unsound and having the grapes perfectly dry. Warm a can of sealing-wax, take each bunch separately, dip the stem in warm wax (not hot) and lay on the table for the wax to harden. Have a clean, dry box, place a layer of waxed paper in the bottom, then a layer of grapes, another layer of paper, and so on until the box is full. Then set away in a cool, dry place; they will easily keep until Christmas.

The Neglected Quince.

It will soon be time for quinces. This fruit is somewhat neglected. Baked with plenty of sugar and served with cream it makes an excellent light dessert. Made into preserves it is excellent to serve with meats and canned with pears or with sweet apples it makes an excellent sauce for the old-fashioned but still prevalent evening supper. A nice jelly and also a nice marmalade may be made by combining oranges and quinces. One can also can oranges and quinces in any proportion desired but a nice proportion is three or four oranges to three or four pounds of quinces and four or five pounds of sugar.

The next step that the fruit growers of this country must take is to go into the retail business and put a string of stores in every big city and one or more stores in every town in the country, and sell fruit to the people at reasonable prices. If fruit is scarce and prices are high, the consumer will have to pay accordingly. If fruit is plentiful and prices are low, the consumer will get his fruit cheap and the grower will get rid of it quickly and get fair prices for it.

As the situation stands today, the grower gets little or nothing, the dealers get little or nothing, the railway gets the regular rate, and the retail men gobble the whole thing, while the consumer gets it in the neck.

Get Free Copy of New York State Agricultural Laws.

Calvin J. Huson, Commissioner of Agriculture, Albany, N. Y., announces that any person desiring a copy of the Agricultural Law of the State may have the same free upon application. The entire Agricultural Law has been printed as Bulletin 51, and includes the amendments made last winter. Included in this bulletin are provisions of the county law, town law, labor law and general business law as bear some relation to agriculture, such as the dog law, the fence law, regulations in regard to stray animals, the provisions of the law relating to weights and measures, so far as they may be of interest to farmers, and a number of other legislative enactments relating to agriculture.

Manuring Trees and Making Grape Cuttings.

Sheep and swine may run in the orchard at dry times during the winter season if care is taken to keep them from injuring the trees, says Penna. Farmer. Although pasturing time has passed, the fertility of the soil will be increased to a great amount by their manure. Sheep will clean an orchard of weeds and the swine will destroy many tree pests. Much care should be taken to see if proper amount of manure is put around each tree in the orchard, for manure produces sap and vigor, and if trees are vigorous and full of sap they will stand cold to the rates of 25 degrees below zero. Take the grape cuttings from the vines now—the sooner the better. Cut the trimmings of the vines into cuttings about 10 inches long, with three or four eyes, leaving the lower eyes just at the bottom ends, and at top end about one and one-half inches of wood

above the eye. Tie bundles of seventy-five, having the lower ends all level with each other. Select a dry spot and dig out a trench about a foot deep and two feet wide. Place the bundles butt-end down, solid on bottom of trench and fill in all vacancies with soil, and cover all with earth, eight to twelve inches deep, leaving the dirt highest in the middle to shed the water each way. Cover with straw, manure, or any coarse covering to keep out the frost and let go until April.

Wintering Strawberries.

One thing that always does good to a strawberry patch is to mulch it in the fall or early winter. As the cold weather comes on and the plants naturally go into winter quarters, it is time to apply the mulch, says Western Farmer. If it is done too early the plants will be smothered and hurt. It is not applied altogether as a winter protection, for strawberries are defiant of cold. It is the mulch that equalizes alternative freezings and thawings, which upheave the plants.

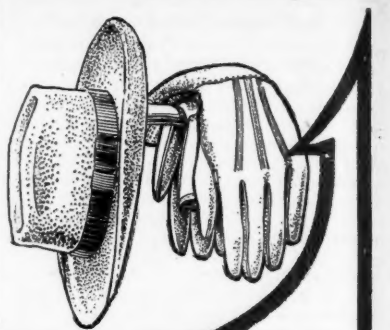
The best material to use in covering the beds or rows of plants is almost anything in the way of coarse vegetation that is free from weed seeds. Clean straw or coarse grass are of this character, but it is very rare that they are so, but, rather, that there is more or less weeds in the straw or grass. Timothy hay is always troublesome because of the seed it contains, and coarse manure that has any considerable proportion of timothy is objectionable on that account. Marsh grass or cattail flags are free from anything that is troublesome. The refuse from sorghum mills can be used with very good results. It lies close to the ground, and if not put on too thickly will serve the purpose of keeping the strawberry plants from feeling the violent changes of winter, retain the moisture in the soil and keep the berries clean the following summer. Cornfodder will act something in the same way. Pine needles, tanbark and cottonseed hulls can be utilized in this way. In the northern sections, where the snow covers the ground like a blanket and only melts in time for growth to proceed naturally, a mulch is not in as much demand as further south, where changes and unsettled cold prevail.

If a mulch is put on very thickly in winter it will not hurt them, but must be partly raked off the rows very early in the spring and left between them. If this is delayed until after the growth starts, which is very often done, there will be serious injury.

Beautiful at all seasons is the forest. No need to dwell upon its loveliness in Summer, when every leaf is opened to its full extent, and bracken is breast high beneath the oaks. Nor need we speak of Autumn, with its infinite variety of tints, its golden rain of beech-leaves drifting downwards toward the soil they so enrich, its sombre fernfronds, dying yet still erect. Beautiful, too are many Winter days within the woods; especially about the Speech-House, where the hollies, freed from the competition with the Summer foliage of surrounding trees, present their loveliness in all its shining charms. And one December day we will recall, a symphony in silver and dark grey, when underneath a leaden sunless sky each branch and twig throughout the woods was sheathed in shining frost. Come to the forest when you will, yet never will you seek its beauty fruitlessly.

P. W. Pardon of Artesia, New Mexico, while baling hay last May missed his purse containing \$22 and valuable papers. He searched the ranch in vain. The other day he received the purse and contents from Birmingham, Alabama, and a letter from J. W. Merrihouse, saying that he had found it in a bale of alfalfa. In return Mr. Pardon sent a crate of fine peaches to the Alabamian as a reward for his honesty in doing the right thing.

John P. Brady, a contractor and builder of Baltimore, has erected at his country place a monument to the memory of Adam. It is composed of stone, bronze and cement and is surrounded by a very large and accurate sun dial. Surrounding the hour figures is the motto, "Sic Transit Gloria Mundi" (So Passes the Glory of the World) and a tablet says: "This, the First Shaft in America, is Erected to the Memory of Adam, the First Man."



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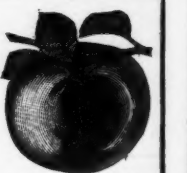
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Thanksgiving.

Written for Green's Fruit Grower by Albert E. Vassar.

Thanksgiving Day has come again
And hearts are filled with gladness;
With so much joy within the soul
There is no room for sadness.
We measure not our blessings all,
By real estate or money,
For with good health great is the wealth
And maketh life more sunny.
Then after all no one is poor
Who's heart is filled with singing,
For a cheerful heart in any one
Will soon much joy be bringing.
Make every day Thanksgiving day,
"Twill drive away your sorrow,
Though clouds may come, we know the sun,
Will shine for us tomorrow.
What if we had all England's coin,
And ne'er could be contented?
We'd wretched be as such a one
Who's love has been resented.
A thankful spirit beats all else,
For making life more cheerful,
With gladness spread throughout the land,
Then nought can make us fearful.

Cleaning up the Orchard in Autumn.

There is no idle time in the year for the one who makes fruit growing his business. With him everything comes with a rush and must be done with a rush in order to get it done at the proper time in the proper manner. It is one continual round of hustle, and the fruit grower who is handling his orchard in the most approved manner can well exclaim, "this is my busy day!" The first thing in spring is the spraying, a job that must be done at exactly the right time or it is not a success. When the first spraying is over with, there comes with a rush the work of cultivating, or irrigating, or the planting of catch crops or the garden work, to be followed immediately with the second spraying. And so it goes until harvest. Harvest season is always a busy time, no matter what the crop, but for the fruit grower it means a hard, steady strain every hour in the day until the fruit is off the trees and either in the hands of the dealer or in storage, says Southern Orchards and Homes.

But when the crop is off and the long cool nights of fall have come, the year's work is not ended, even if some careless fruit growers do think so. The year has in fact just begun. It is the morning of the next year; it is the time to get scrubbed up and cleaned up for the next season's business. It is the grand renovation period and the time to put orchards and grounds in shape for their next crop. More good work in the campaign against injurious insects and fungi can be done in the fall by cleaning out the fence corners and burning up the rubbish than by half a dozen days of spraying the next spring. All of the old weeds in the borders and the uneven places in the orchard, where they have been skipped by the cultivator or mower, should be gathered together and burned. They are the lodging places of many insect pests of the orchard. It may be necessary to sprinkle oil on some scattering spots to encourage the rubbish to burn. All of the prunings that are cut in the fall should be burned, so as to destroy the insect eggs and fungus spores that are lodged on them.

It is worth while to stir the surface of the soil in the orchard in the fall, if it is at all possible to do so. This will break up the burrows of the plum and apple curculio and some other insects, so as to expose them to the freezing and thawing of winter, so they will be killed.

If the orchard has been in clean cultivation all summer, it is possible that a cover was sown in August, in which case fall cultivation will not be needed, but if the orchard is in sod the grass will need to be mowed before winter. Do not pile the clippings around the bases of the trees where it will afford winter quarters for the field mice. Rather than do this, hoe all the grass and weeds away from the base of each tree so as to leave a clean place three feet on each side of the tree. The mice, then, will not be induced to so readily gnaw the bark of the trees. This is especially true for young trees, even if they have the wood wrappers around them to protect from rabbits.

The fall and winter months afford the best time for looking the trees over for cankers. These are rough, black, more or less swollen places on the bark, varying in size from one's finger nail to several inches long, and usually cracked open. These are the winter resting places of several troublesome fungus diseases, such as bitter rot and fire blight. The best way to find these cankers is to get a tall ladder and set it alongside of the tree. Get up above the tree so as to look down on the branches. Many of the cankers will be found only on top of the limbs and can not be seen from the under side. Cut out the limbs bearing these cankers and burn immediately. This will prove to be a good bit of insurance against a few troublesome fungi the next year. After all of the cankers have been cut out go over the orchard and paint all the wounds that are larger in size than a silver dollar, and also paint all old wounds that were made in previous years, so as to fill up the check cracks. The best paint to use for this work is white lead oil, made rather thick and colored with just enough lamp

black to take off the glare of the white lead.

While looking for cankers make it a point to pull off all of the old fruits that are hanging on the trees, and put them in a pile where they can be burned with other rubbish from the orchard. They are more or less filled with spores and of bitter rot, brown rot and scab.

Examine the twigs of the trees for the eggs of the aphids, and for San Jose scale. The aphid eggs will appear as small greenish black, or black bodies scattered along the twigs, usually close to the buds. If the eggs are numerous prepare to kill the young as the eggs hatch in the spring. This will take place at about the time the buds have begun to swell, when the young will collect around the opening buds and insert their sharp beaks into the tender leaves. Spray them with the lime-sulphur mixture of lack Leaf Dip.

If San Jose scale is found in the orchard be sure to spray the trees thoroughly with lime-sulphur before the buds open in the spring. Some of the miserable oils are also good for the same purpose and such materials are the only means that can be used effectively in combatting this troublesome pest.

Fall plowing should be practiced whenever possible, for the purpose of storing up in the soil large quantities of the winter precipitation, exposing insects to the action of the weather, liberating plant food, and putting the soil in such shape that it will be tillable at the earliest date in the spring. Fall plowing, if useful for no other purpose, makes it possible for the soil to drink in large quantities of the winter rains and snows. Dr. Witsoe of the Utah experiment station has shown that under some conditions that the upper eight feet of the soil can take up ninety-five per cent. of the winter rainfall, and that the precipitation can penetrate to still greater depths. This water which enters into the soil is stored up for the use of the trees the following summer, and by the most ordinary cultivation it can be held there to carry the trees through the drought of summer.

Mention can not be made here of the many details in pruning which needs to follow immediately upon the fall cleaning up, nor of the sundry lines of spraying that must follow close upon the heels of the pruning work, and it must all be done before the buds begin to open in the spring. In the fall it is "clean up" that is the watchword.

Diner—Say, when was this sandwich made?

Waiter—How do I know? I've only been here three weeks.—Chicago News.

Robbing The Soil.

When a soil is never plowed, nature produces at her primitive level of efficiency. When a soil is cultivated annually, it is robbed by what is really excessive use or exploitation, as well as by the wearing out and dissipation of invaluable humus accumulated through a long period of time, and it is prevented from replacing any of the humus, a double loss. When a soil is cultivated biennially, nature is really assisted; first, by the conservation of the humus already stored up; second, by the reduction of mechanical wear and exposure to wind and sun one-half; and, third, by the addition each year of an amount of matured vegetation, cellulose, more than sufficient to replace the amount used by the crops produced on the cultivated half during the same year, or on this piece during the previous year, a double gain, says California Cultivator.

A good covering of grass shades the soil, prevents wash, conserves the rainfall, enabling seed to sprout much earlier than on bare ground, and sheltering the young grass to such an extent that it gets a very much better start than that struggling along in the open, exposed to wash, to heat, to wind and to cold. These advantages are obvious to stock men, and they apply equally well in the orchard or on the farm.

On land cultivated biennially the crop of native vegetation will increase very rapidly. Whereas ten years ago our crop averaged about two inches, now it will average over two feet high, and thick in proportion. Through the large amount in the soil and that standing (which is generally laid out across the flow of the water) wash has been eliminated, although our land is all hilly.

Another thing: it is a fact that soil benefits from lying still every second year. This is a necessary rest, analogous to the sleep of the hired man, or any other animal. Earth worms have a chance to work through it and to multiply, and there are other factors at work about which we do not know much as yet.

Again, biennial cultivation makes conditions right for bugs, ants and other forms of animal life, and they thrive immensely, to the great advantage of both land and landlord. I think that pests can be held in check much more readily under this system than under clean cultivation, because there is home and opportunity for their natural enemies.

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FARM DEPARTMENT



FINAL PREPARATIONS FOR WINTER

About the Farm.

Written for Green's Fruit Grower by F. H. Sweet.

The turkey intended for Thanksgiving dinner should be fed for a few days on a morning meal composed of corn meal or bran mixed with boiled apples, roots or potatoes, and an evening meal of whole corn. After that it will be ready for a special fattening ration. One composed of three feeds per day of corn meal and boiled potatoes, with an evening feed of wheat, whole corn or buckwheat will round him into shape. Three weeks feeding of the latter ration will be plenty for a bird in good condition.

Forest leaves make excellent bedding for the stock. Collect all of them possible and store under cover to be ready for use. The leaves should be dry before gathering.

All the plowing done this fall will ease up the spring's work. Heavy soils will be benefited also by the action of the frost. Oat lands manured this fall before plowing will only require loosening with a harrow in the spring to fit them for the grains.

House all the stock at night and during chilly days. A horse can easily be blanketed too warmly at this season while

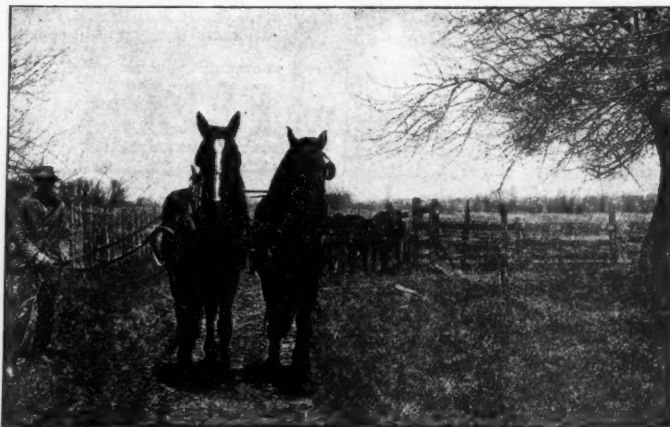
excepting to those laid down in early fall. If the grass plants need fertilizing, apply concentrated manures in the spring.

Hardy bulbs do well, even if planted at this late date. The beds will require a mulch this month. One of straw manure leaves or litter will answer the purpose. Three or four inches is a sufficient covering for ordinary winter conditions. Place the material over the bed evenly and allow it to extend several inches beyond the planted area.

The plants that have been placed in the cellar or storage pits are not expected to grow but merely remain dormant until spring. Give only enough water to keep them alive, and as cool a temperature without freezing as possible.

PLANTS FOR INDOORS.

Early this month is the best time to procure plants for indoor decoration before they have been forced in the warm greenhouse compartments of florists' establishments. Owing to the dry atmosphere and absence of sunlight in the ordinary dwelling, only a limited number of plants are suitable for this purpose. Palms are favorites for parlor decoration, and lead all others for effective display. Give a daily sunbath of two hours or so



The dinner bell has rung and the plowman has started homeward with his team. The cattle look as though they would like to return home also. Long speed the plow!

resting in the stall, although when heated from driving he should be covered with a heavy woolen sweater. Cows in full milk can rarely eat too much wholesome food. If they become too fat from their rations it is a sign that they will be more profitable for flesh than for milk.

THE HOME FRUIT GARDEN.

Fruit in storage is retarded or accelerated in ripening by the air and temperature. The greater the variations of temperature the poorer the fruit will keep. Open the fruit storage whenever the outside temperature is cooler than that within, protecting the fruit at all times from becoming frozen.

If the fruit trees are infested with San Jose scale, the last of November is the time to give the first spraying. After the leaves fall prepare the trees for treatment by cutting away all dead and badly damaged wood. Infested trees should be headed in severely. Burn the prunings immediately and give a thorough spraying using lime and sulphur or one of the miscible oils.

Planting of all except stone fruit is advisable this month. Prepare the soil well by deep plowing or spading; and in setting the trees be sure and get only fertile soil about the roots. Trees desired for spring planting are best secured in the fall and heeled in on the premises. Provide a light winter protection for them of straw or evergreen boughs.

If convenient, trim the grape vines as soon as the leaves have fallen. Trim out the old wood as well as much of the present season's growth. A vine carrying from fifty to sixty buds after pruning will meet all the demands of the home fruit culturist.

THE LAWN AND FLOWER BORDER.

Do not mulch the hardy border plants too early. If the weather remains comparatively warm, wait until early next month. In covering use long material, so the plants will not be suffocated. Leaves are admirable for this purpose and can be used to a depth of several inches without damage to the dormant plants. Hardy chrysanthemums, especially, are easily suffocated by a mulch of fine material.

If the lawn is an old one in good condition, no winter protection will be required. The practice of spreading rotted manure over lawns has been carried to extremes. Its presence is detrimental to all lawns,

and frequent syringing of the foliage with water.

The hardiness and attractiveness of the rubber plant has made it popular, but the old well-known sort, *Ficus elastica*, is fast becoming replaced by a more distinct rubber plant known as *Ficus pandurata*. Its large odd-shaped, rich-dark green leathery foliage is especially ornamental. Ferns are also among the desirable foliage plants for indoor use. These plants will thrive anywhere when proper attention is given to the soil, drainage, temperature, watering and sunbaths.

On account of the exquisite markings of the foliage and the manner in which they stand house confinement, dracaenas hold an important place among the plants for home adornment. The leopard plant, *Farugium grande*, and the Norfolk pine, *Araucaria excelsa*, both stand the absence of sunshine well, and are very beautiful. The different sorts of ornamental asparagus have also proven worthy as candidates for indoor use.

The City Man Farmer.

Charles A. Green:—I read with a great deal of pleasure each month, Green's Fruit Grower, and in this August issue I find many things of interest, especially the questions asked regarding the advisability of a city man turning farmer. I am just the reverse, a farmer turned city man, having spent fifteen years or so on a farm with my uncle in Virginia, who was an Englishman of no little ability as a trucker and fruit grower and I take great pride in the knowledge I have of both and to use a slang phrase, it is "some knowledge" for my uncle, like all Englishmen, thought he knew it all (and I think he did) and never consented to let me take an active hand in anything like pruning and grafting, which is extensively indulged in by most of our congressmen and other officials here in Washington, until I had stood and looked on for several years handing him tools and other equipment with which he worked. I fairly itched to do it myself, that is what my uncle did, not the latter, and how well I remember the day I did the first operation on a tree—that of grafting a name sake to a Seckle pear limb, and with what inexpressible delight I saw it live and grow and become a part of that tree and how the climax of that joy was reached when

one spring, two years later, I saw blossom buds appear, then the fruit blossom, then the small green pears and finally clusters of two and three large juicy yellow Bartlett pears, the finest that grew, hanging right next to a limb laden with the juicy, delicious little brown and yellow Seckle; my first graft (on a tree) had lived and during my years of boyhood on that old farm I picked, summer after summer, baskets of the two delightful fruits from that one tree, and it still stands. There is little wonder that a boy after years of such work, having reached manhood and left the country and taken up a profession in the great Capitol City of the United States should long for that life once again. My heart fairly yearns for it and I am thinking strongly of going back to it again, in a way, for I am yet under forty years of age, strong and well and the call of the country is constantly ringing in my ears and the desire to get out in the open has a strange hold on me, yet, with all my experience, I can tell you I would hesitate giving up my business and depending on the farm, giving up a certainty for an uncertainty, and I would advise any man not to do it unless he has unlimited capital with no experience or a steady income with quite a little experience, for any man after passing thirty years pays dear each year for such experience. You can't govern help and tell them what to do if you don't know what you are talking about yourself, and if you don't know what you are talking about you don't know what your help is talking about, you don't know if they are doing right or wrong and worst of all you are at their mercy and paying for it all—get some experience by all means before giving up your job.

I would like you to print this in your next issue and I would be pleased to contribute an article along this line to your paper each month for I am an advocate of the city man getting out of the city into the country when he can have a small piece of ground to work in and grow flowers, fruit and some vegetables. There is nothing so gratifying as to see beautiful flowers grow and open out to the sunshine, to work them and water them and pick them for the house. Mine greet me every morning when I walk into my back yard, there is a bright smile on the face of every pansy that faces me and a nod of the head of every beautiful aster and the sweet perfume of the erect little tuberoses is blown across my path all in acknowledgement of the tender care and watchfulness I have given them and I am a thousand times repaid each morning and evening, I love them all and they grow for me anywhere.

I have one bed about 4 by 16 feet filled with the beautiful Lavender Gem and Rose King asters the center row being the Rose King with the Lavender Gem on either side and they are a sight to behold. I think there must be a thousand in full bloom ranging from three to four inches in diameter and as I walked out through the yard this A. M. after a refreshing little shower their beautiful heads were all bowed to me and I wondered how any one could ask the question, "Don't you get tired?" as has been asked you.—D. Frederick H. Bartlett.

A Good Word for the Wealthy Apple.

C. A. Green:—After being in active business for a good many years, it is the greatest pleasure of my life to wander among the two thousand trees that I planted about eight years ago, to trim, and spray, and to watch their growth, and to realize what the outcome will be in a few years.

When I think that the thirteen hundred apple trees alone will yield from five to twenty thousand bushels, I wonder why so many are blind to similar possibilities. There is one variety that I wish to speak of in particular, of which I have several hundred trees, and that is the Wealthy, which I think is the handsomest apple I ever saw. It is large, of fine shape, and such a beautiful red, striped a little with yellow, with a light spot on one side near the stem, and they partake of a polish that makes them look as if they were varnished.

I did not intend to write of the apple, but when I once mention that subject I cannot let it alone.

I want to tell you of the shrubs that you sent me last spring. You may recollect that you made the selection for me, and sent a little collection of the different varieties. When they came, they had splendid roots and one of them was full of blossoms. I prepared the ground, and used a good deal of care in setting them out, and on account of the extremely dry season have had to water them a good many times.

A few days ago my wife said to me, "have you noticed that Althea bush?" "No," I said, "is it dead?" I went out to see what the trouble was, and there I found it full of blossoms, and it is certainly far from being dead. Yes, they are all alive, and I hope to put out many more next spring.—Calvin Forbes.

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Pure Water Supply for the Farm.

Written for Green's Fruit Grower by Earle William Gage.

Probably nowhere is pure water more demanded than on the farm. The importance of sanitary water for both drinking and purposes of cleanliness has long been appreciated, and the wonderful improvement in health of communities which have followed the introduction of abundant supplies of pure water certainly bears witness to the importance of every precaution in this particular direction.

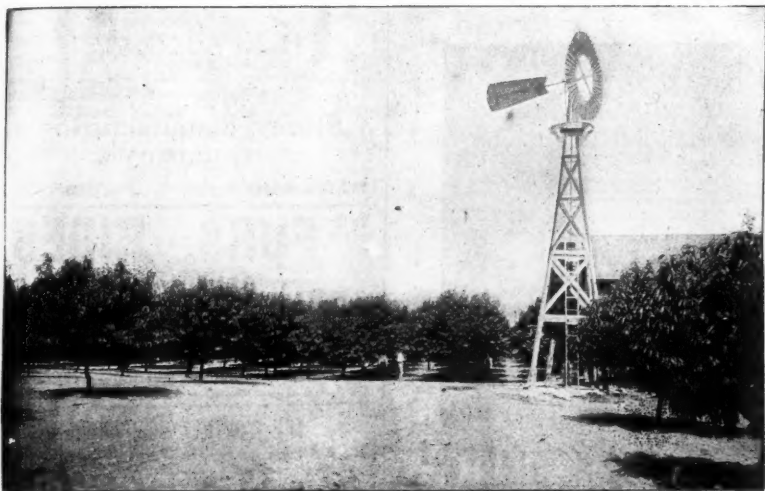
For a generation or more attention has been paid to the water supplied cities and towns, inasmuch as health boards have been elected for this purpose. But the farm supply has been neglected to a terrible degree. Here, amongst the independence of the farmer's life, left, as has been the water supply to his judgment and consideration, little thought has been given the subject. Contaminated water used in connection with farm products may affect not only the farmer and his family but all who purchase his products, which is certainly a mark against his system of procedure.

There is perhaps no one source of danger greater than that arising from the use of polluted water for washing and rinsing the milk cans and pans. It should be borne in mind that the bacteria of various types flourish best in milk, and that bacteria are the cause of many of the dreaded diseases of the day. One drop of polluted water contains sufficient power to contaminate any number of gallons of milk.

The three necessary factors for a sanitary water supply on the farm are purity,

Many farmers tell us that they have a spring that gives nice cold water. This water is, nevertheless, surface water, not because it is derived from the heart of the earth, but, because it stands for a considerable time on the surface. Springs of the best type are in danger of pollution from surface drainage, while, if the spring be open, it is liable to pollution by the introduction of impurities in dipping the water out. Such contamination should be guarded against by inclosing the spring in a concrete casing on all sides and providing a tight cover and a pipe cemented in on one side to allow the water to run out. Make the cover removable, that spring may be cleaned of accumulated sand. Many farmers have used with success a section of terra-cotta drain tiling, and if it is set in cement over the point where the waters well up out of the ground, answers the demands admirably. The tiling should be provided with a tight removable cover and a pipe to allow the water to run out. Either of these arrangements would obviate the danger of polluting the water by dipping unclean vessels into it. Some springs, although excellently protected by a coping on three sides and in other ways, are made liable to pollution by having steps leading down to the water's edge. Under such conditions the danger of introducing impurities from the soles of dirty shoes is apparent.

Where there is no opportunity for spring water, and where a well is not feasible it becomes necessary to resort to cisterns, and if these are properly constructed and operated they may be made to furnish sanitary requirements. The walls should be water-tight, both to prevent water from leaking out and to guard against



Pure Water on the Farm.

abundance, and convenience. The most important of these three is purity. The water may be pure and sufficient for drinking purposes and yet not be sufficiently abundant for cleanliness. For sanitary purposes it is essential that the water should be in such quantity at all seasons of the year that there is no need for stinting in any direction. There should be a sufficient supply to answer the demands for personal cleanliness, the laundry, washing utensils of the kitchen or dairy, and for the premises.

Farms derive water-supply from wells, drilled and dug, springs and cisterns. A recent inspection of the water supplies of the dairy regions of two states showed that wells are used much oftener on these farms than either of the other two, the proportions being about five wells to three springs and one cistern.

To carefully guard against the pollution of wells the location is of vital importance. Where it is possible the ground should slope away naturally on all sides and the pump should be on top of a mound which should be well sodded or cemented all around. Sources of domestic or of other pollution should be separated from the well by an impervious layer below the ground to avoid any danger of pollution from seepage.

The ground about the well should be protected from animals by use of a fence. The shaft of the well should be thoroughly tight, and for this reason the use of terra-cotta tiles or metal pipe for the shaft is preferable to walling up with bricks and mortar. The use of open wells, or even of chain pumps, is not to be recommended, since they are more liable to pollution from the introduction of impurities down the shaft.

Every precaution should be exercised to prevent the contents of a cess-pool from soaking into the soil, for even if the cess-pool be at a distance from the well the ground between may eventually become saturated and fail to act as filterer, as is natural. The crude systems of sewage disposal yet in vogue in rural districts is a menace to the pure water supply.

pollution from without. The best cisterns are those constructed with a two compartment-plan, having a brick wall between, of porous texture, that water may pass through and be filtered. The water from the roof is made to run into one chamber, thence into the other through the filtering wall. The first water to fall upon the roof should never be allowed to run into the cistern, as the bird drooping and dust from a dry period is dangerous and cannot be purified even by passage through the wall. Slate roofs are best for the cistern system of water supply.

Comparatively few farmers seem to fully realize the great importance and convenience in the matter of water supplies, even from an economic point of view. Less than one-fifth of the dairy farms recently inspected have windmills, rams, gasoline engines and pump-jacks for the supply of water in the quantities which the large dairy demands.

The farmer of this day and age cannot afford to pump water by hand for his dairy. He cannot afford to drink, nor cause his family and stock to drink, polluted waters. Have the farm water the best in the land which it should be.

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Without sending a cent you can use this wonderful, economical light 10 days free, then return at our expense if not satisfied. Gives powerful white incandescent light, burns over 50 hours on one gallon Kerosene (coal oil). No odor, smoke or noise, simple, clean, won't explode. Guaranteed. We want one person in each locality to refer customers to.

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Make money evenings and spare time. One former cleared over \$500 in 6 weeks. Exclusive territory given.

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When you write advertisers Please mention Green's Fruit Grower.

A Good Thanksgiving.

Said old gentleman Gay on a Thanksgiving day, "If you want a good time, then give something away. He sent a fat turkey to shoemaker Price, and the shoemaker said, 'What a big bird! How nice!'"

And such a good dinner is before me I ought to give Widow Lee the small chicken I bought. "This fine chicken, oh, see!" said the pleasant Widow Lee.

And the kindness that sent it how precious to me! I would like to make someone as happy as I— I'll give washwoman Biddy my big pumpkin pie. "And, oh, sure," Biddy said, "tis the queen of all pies!"

Just to look at its yellow face gladdens my eyes. Now it's my turn, I think, and a sweet ginger cake for the motherless Finnigan children I'll bake. "It smells sweet of spice, and we'll carry a slice To poor little lame Jake, who has nothing that's nice."

"Oh, I thank you, and thank you!" said little lame Jake. "Oh, what a beautiful, beautiful, beautiful cake! And oh, such a big slice! I will save all the crumbs, And will give them to each little sparrow that comes. And the sparrows, they twittered, as if they would say, 'Like old gentleman Gay, 'On a Thanksgiving day, If you want a good time, then give something away.'"

—Maritime Farmer.

An Orchard as a Bank Account.

Written for Green's Fruit Grower by John E. Taylor.

Every farmer is anxious to grow that thing upon his farm that will mean the most money to him. It is seldom heard that a man who has an orchard that is bearing will declare that it is not a paying proposition. Statistics show in Maine that few farmers who own farms with orchards upon them ever care to sell them. It is also shown that all real estate catalogues place an orchard among its first assets in the sale of a farm.

Now very few people know how much it costs to raise an orchard and for this reason there are fewer orchards than there otherwise would be. R. T. Patten, owner

ing, wiring the trees or using some form of protection for mice. Mr. Patten uses elm veneering which costs about \$6.00 an acre.

The planting between the trees each year is of great advantage to the orchard. It increases the growth one-third. As an experiment, one year when the trees were two years old, Mr. Patten left a row without being cultivated around the trees and in the fall these trees showed that they had gained about six inches where those that had the cultivation had grown 17 and 18 inches.

Spraying an orchard is a prime requisite. It should be done twice a year and sometimes three times, using at one time lime sulphur and at another time arsenate of lead, one being used in the fall and the other in the spring. The arsenate of lead should be used when the petals have fallen and never when the trees are bearing fruit.

Mr. Patten's idea is that an orchard well started should bear the seventh year two bushels of salable apples to the tree. When the trees are ten years old they should produce on an average more than a barrel to a tree, the profits from 1,000 trees being about \$1200. For the next twenty years the owner of the orchard can be on easy street, so to speak, for his orchard will be a bank account with big interest.

All Round the Farm.

Work the big jobs off while the weather is good.

Every cent expended in getting good water on the farm is money well laid out.

The other day I was at a farmhouse where the water used in the house for cooking and drinking certainly was ter-



An attractive display of apples grown by W. H. Weik of Ohio. Such fruit as this will tempt almost anyone to start an orchard.

of Eaton Mountain Farm, Skowhegan, Maine, whose farm last year was one of the United States Experiment stations, is convinced that when an orchard of 1,000 trees, he owning that number on his farm, is ten years old it will yield a profit of at least \$1200.00 for that year and increase as it grows older.

In keeping account of setting out his orchard and getting his land ready he states that he has chosen rocky soil and that he believes that rocky land is best for an orchard. Roughly his figures are as follows:

Value of land per acre \$30.00, for 25 acres.....	\$750.00
Picking rocks before plowing, per acre \$4, for 25 acres.....	100.00
Plowing rocky land, per acre \$4, for 25 acres.....	100.00
Picking small rocks after plowing, per acre \$4, for 25 acres.....	100.00
Narrowing, for 25 acres.....	64.00
Number of trees per acre, 40 @ \$25.00 per 1000.....	250.00
Cost of surveying, digging holes, pruning @ 11¢ each.....	115.00
Cost of lime per acre at \$7 per ton, 1200 pounds.....	113.75
Cost of putting on lime at \$1 per acre.....	25.00
Cost of elm veneering protection against mice.....	150.00
Replacement of trees, 2 to acre, 1st year @ \$.45.....	22.50
Replacement of trees other years, less than 1 tree to acre.....	4.50

Half of the battle in orchard raising is getting the land ready for the trees. Mr. Patten has set his orchard 40 trees to the acre and of the Gano, Stark and McIntire varieties, the cost delivered to the field 25 cents each and the cost of surveying land, digging holes, pruning roots about 11½ cents for each tree.

Setting out the orchard is not all there is the first year. Plowing up the ground again in the spring between the trees is a chief requisite and various kinds of crops, including corn, wheat, potatoes, etc., are planted, using about one ton of fertilizer to the acre. The profits from the crops will about offset the expense of the orchard during the first year. The expense of the orchard during the first year is the prun-

ing, wiring the trees or using some form of protection for mice. Dangerous to use such water, and it is not necessary to do it, either. A single day will clean out the well and give you good water. Is not life worth it?

Every good apple ought to be saved and either used at home or sold. Turn everything to account.

One farmer I know makes it a rule never to go to market without something that can be turned into money. That is what tells the story—bringing back a little more than you take.

Thousands of bushels of small potatoes will lie on the ground and rot this fall. Think of all the hogs these would fatten, if boiled and mashed for feed! Save yours.

It is the things you save that brings in the dollar.

Oil the heavy wagons and save the axles—and the horse flesh.

Harsh treatment with a sick animal is just as bad as it would be with a man or woman who is ill. You would not stand it for a moment to have one of the boys treated harshly when sick. Then why be cross or cruel with a good horse or a cow? —Agricultural Epitome.

Remember that the wood ashes that come from the cook stove, fireplaces or furnace are the best kind of fertilizer for the orchard, lawn or garden.

To Prevent Tools From Rusting.

Any steel tool will rust if exposed to damp air, yet I have found that tools subjected to the following treatment every three months will not rust unless actually thrown on the ground or exposed to hard rain. Take two parts each of graphite and tallow and one part gum camphor; melt together and if not soft enough to form a stiff paste add more tallow or lard. Remove all rust from the steel surface, wipe dry and apply the paste. Let it remain on for twenty-four hours, then rub dry. Unless the tool is needed even longer than one day will be still better for the tool to be covered with the preparation. The above preparation has the effect of a coating of oil though every vestige has apparently been removed for months.

The Bastian "Oregon" Pruner

Operates with a simple pump-gun action upon a most powerful compound leverage enabling you to cut with a quick pull a small twig or a limb an inch thick. This pruning hook is light, but very strong powerful and durable. The natural position of your hands on the pole-handle gives ease, speed and accuracy of operation. All side-strain is eliminated as the compound leverage principle places the strain lengthwise of the pole. The perfectly tempered and ground Sheffield Tool Steel blade makes a clean, smooth cut—there's no chance for it to pinch or bind.

The Bastian "Oregon" Pruning Shears

These shears work with the same easy but powerful compound action as the pruning hook. They are especially adapted for cutting out water sprouts and suckers, heading back young trees, trimming hedges, berry bushes, etc.

The Bastian "Oregon" Fruit Picker

Gets the fruit that's "way out of reach" of your hand and picks it without bruising in the slightest. You need this handy fruit picker. It will soon save enough fruit to pay a big profit.

Bastian "Oregon" Orchard Tools

are carefully made of the best materials. They are reasonable in price and guaranteed. Made in all lengths.

Try These Orchard Tools

If the local dealer cannot supply you with these tools, do not accept substitutes. Write to us and we'll send prices and the name of the nearest dealer who can supply you or we'll ship direct. Try Bastian "Oregon" Tools before buying others.

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What is a publication like Green's Fruit Grower worth to you each year? Our readers tell us that it is the best monthly magazine that comes to their homes.

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Nothing to Equal This in New England.

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STORER F. CRAFTS, Proprietor.

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Storing Fruit During Winter.

The importance of storing fruit immediately after picking is greatest in the warmer apple belts of the country, though it is equally important in the northern apple-growing sections when the fall months are unusually warm, says Pennsylvania Farmer.

In handling the apple for cold storage the ideal is reached when the fruit can be taken directly from the tree to the warehouse. So far as the fruit is concerned, a similar condition is approached when it is shipped to a distant warehouse in refrigerator cars, or the ideal is attained in those sections or seasons in which the picking and handling of the crop occur in cool weather. It may not be practicable for the apple dealer who is located in a distant city to store his fruit in warehouses situated near the orchards, nor is the local warehouse advisable in sections where there are inadequate facilities for transporting the fruit to distant markets during the winter. As a general rule, it is to the mutual interest of the owner and the warehouseman that the fruit be stored where it can be watched carefully throughout the season by the owner, as the warehouseman is responsible only for the proper management of the building and its contents, and not for the ultimate condition of the fruit.

A system of warehouses located in the orchards and managed by growers, or operated by companies in near-by towns, would reduce some of the difficulties with which the growers in the warmer apple belts have to contend, and would thereby give greater stability to the industry in those sections. There can be no question, from the standpoint of the keeping of the fruit, of the advantage of a warehouse located near the orchards, but its usefulness to the business as a whole depends not on the keeping quality of the fruit alone, but on the larger question of adaptability to the present requirements of the apple trade.

The same variety of apple may vary widely in keeping quality when grown under different conditions. The apple is affected by its geographical environment, by the type of soil, by the condition of the trees, and by other factors connected with its production. It is probably safe to say that an environment which causes the fruit to grow with unusual rapidity causes it also to mature correspondingly fast after the fruit is picked. Apples grown on low, rich land or on young trees are abnormally large and are likely to deteriorate sooner than fruit of the same variety from older trees on a more congenial soil. Fruit stimulated by nitrogenous fertilizers in orchards in which the water-holding power of the soil has been largely increased by the incorporation of vegetable matter is often inferior in keeping quality. Similarly, apples produced on quick-acting sandy soils and on the strong new lands in some of the newer apple-growing regions are apt to reach the end of their life relatively early in the season. The grower should recognize the fact that the apple is greatly modified by its environment, and that the inherent differences in each lot are not eliminated by storage treatment.—T. A. Tefft, New York.

Planting Fruit Trees.

If you own a piece of land, even if it does not contain more than five acres, plant a portion of it to fruit. In a small orchard it is a good plan to alternate apple and peach trees. In this way you can plant trees much closer together as the peach trees will have died before the apple trees are large enough to interfere with them. Apple trees should not be planted nearer than two rods of each other, if they are, the mistake will be noticed before they are half grown, says Fruit Grower. Plums, apricots and cherries may be planted twenty feet apart and it will be a long time before they crowd each other. Standard pears should have five feet more room each way. Dwarfed fruit trees are condemned by some fruit growers as bearing early and dying early. They may be profitably planted in a new country where fruit is scarce and land cheap. Manure a young orchard heavily and cultivate it thoroughly. Plant small fruits for the first five years between the rows, leaving it so you can plow one way, especially where the tract is small and land is dear.

Lightning is said to differentiate between trees as well as men and women. Some years ago Mr. McNab, a fellow of the Botanical Society of Edinburgh, investigated into the generally received opinion that neither the beech nor the birch is ever struck by lightning. He collected information regarding lightning struck trees throughout Great Britain, and found no single instance of either of these species being struck. Investigation in North America gave similar results. He found, indeed, that in the forest regions there a beech tree was regarded as the safest place in a thunderstorm.—London Chronicle.

Leaving Out My Favorites.

Written for Green's Fruit Grower.

In looking over "Green's Fruit Grower" I am looking lovely pages over, Oh the many kinds of fruit trees I did find, But there's some trees that I don't find there (And we almost think it's unfair) 'Tis the walnut, chestnut, hick'ry,—that's the unkind Only fruit trees are the showing, Nuts, on fruit trees, just be knowing, And, if perplexed, oh just you ask the squirrel, Up and down the trees they're running Carrying nuts and aint they cunning And their busy tail with joy does seem to curl; And they too left out persimmons 'It's too bad' said brudder Simmons And perhaps that aint fruit, sir, anyway, Well, of it I have a fancy 'And I tellyo' wot' said Nancy 'T'd sooner hab persimmons enny day.' And one more they've missed said Jenny 'Tis the cute and sweet mulberry, And how the kids do like 'em yes sir—e; Never mind I aint a kicking, When a lad, I got a licking For being caught in Smith's mulberry tree.

The Indian the Only Truly American. (See Front Cover Page.)

How careless we are in calling ourselves Americans. You and I, kind reader, our friends and neighbors, and all other white people on this continent are in a certain sense foreigners, that is our forefathers must have been either Irish, English, Scotch, German, or of some other European race or nation.

The American Indian was at one time the sole owner and possessor of the American continent. When Christopher Columbus and other discoverers first arrived in this country they found the Indians peaceful and friendly, in fact they were more than this for they welcomed the strangers who seemingly came from another world, and gave them freely of their food, their gold and other treasures. It is only after the wild Indian has been cheated and slaughtered that we find him on the war path with slaughter in his heart.

The American Indian possesses many noble traits. In some respects he excels those who consider themselves so highly cultured, who live in palaces located in great cities where they spend their lives and fortunes selfishly upon themselves without thought for the welfare of others.

The American Indian is hospitable to a high degree and will share his last morsel with a starving stranger. I am told that during severe blizzards travelers caught in the storm can safely drop into the tepee of the Indian without ceremony and be welcomed there with warmth and food.

The beautiful drawing on the cover page represents the American Indian on the war path. So far as we know the Indians were frequently at war with themselves, different tribes encroaching upon neighboring tribes. During the early wars of this country the Indians sided with one or the other of the factions or both and proved good allies.

The American Indian is one of the most romantic figures on this continent. No one knows from whence his race sprang. The assumption is that he is an Asiatic, that the path by which he came from Asia has been sunk in the ocean.

At Green's Fruit Farm in digging gravel from a hill top numerous graves were disturbed. In one of these graves was found in a sitting position the skeleton of an assumed Indian chief. He was buried with his wampum about his neck. All of these beads and shells I have in my library, also the skull. The antiquarian says that these Indians were buried about three hundred years ago. I take pleasure in picturing in my imagination the trails through the country made by these Indians before the advent of the white man, and to imagine the pleasant hunting grounds which our farm lands once made for the Indian when covered with the oak, maple, beech and pine. In imagination I see the Indians riding in their bark canoes over the beautiful creeks, rivers and lakes of western New York.

Near the farm on which I was born, twelve miles south of Rochester, was the site of an Indian village. Near this former village flows the Honeoye creek, a name given it by the Indians. Many of the villages and streams of western New York and the lakes have been named by the Indians. When a schoolboy at Lima, N. Y., I wrote a poem, so called at least, entitled "A Legend of the Honeoye." In these verses I told of an Indian lover and his sweetheart. The girl, named Honeoye, in attempting to cross the creek in the flood season on an errand of mercy was drowned. The Indian lover became demented and paddled up and down the stream crying for Honeoye, thus the Honeoye creek was named.

Many Indians have turned to fruit growing. We have a number of Indians who are subscribers to Green's Fruit Grower.

Self-Evident Fact.

"It is impossible to get a fair estimate of the output of the American hen."

"Why is it impossible to get a fair record?"

"Because, no matter how you fix it, the record is bound to be a fowl one."



IDEAL Apple Barrel Cushions

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"Fruit Growers' Favorite" Pruning Saw

has a self feeding draw cut blade with a thin back that will not pinch or bind. It will cut limbs closer to the tree and will do three times the amount of work in a given time than any other saw. The work is done while standing on the ground, handles from 6 to 8 feet long. It is very light weight and a great labor saver. Price, \$1.50.



Standard Tree Pruner With Metal Brace Plate. Anti-Rust Rod, Steel Lever.

Most convenient to use. Sure to do its work well.

Price not prepaid, Length 4 feet, weight 31-2 lbs. 75 cents. Price

not prepaid, Length 8 feet, weight 41-2 lbs. 95 cents. Price, not prepaid, Length 10 feet, weight 5 lbs. \$1.00.

The Crown Green Bone Cutter.

Cuts easy, fine and fast. Has steel knives; can be taken out and sharpened and replaced in a few minutes. Diameter of handwheel 21 1/2 inches. Price \$6.50, weight 50 lbs. Price, with iron stand, \$2.00 Extra.



The No. 1 Bone, Shell and Corn Mill for Poultrymen.

This mill will grind dry bones, shells, all kinds of grain, gravel, stale bread, crackers, roots, barks and spices for poultry or poultry yard. Price, \$3.95 weight 33 lbs.



Aluminum Leg Bands, lightest and best, Price Postpaid; 25 for 25 cents, 50 for 40 cents, 100 for 70 cents.

Address GREEN'S NURSERY CO., Service Dept., Rochester, N. Y.

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Paragraph Sermons.

By E. L. Vincent.

Half your worries come from something in our way of living yesterday, and the other half are reflections from the first.

Before night something will happen that will lead you to say, "I don't know which way to turn. I'm so busy." We're glad this is so. The saddest, the loneliest, the most useless man is the man who has nothing to do.

When you do a thing, do it with all your might, then drop it and look for something else. Mourning over the thing that has been done and wishing you might have a chance to do it over again is worse than crying for night to come back when the morning stars are telling of the new day soon to come over the hills.

The Common Towel.

This household infection spreader is abhorrent and repulsive to a person who has been used to an individual towel. It is difficult to understand how any one can wipe his face on a soiled, damp towel that has been used by all the other members of the household. But custom is a great factor in molding habits and allying prejudices, hence the necessity of pointing out at least one reason why the common towel is dangerous. There are many germs which will attack the eyes and cause inflammation, providing the eyes are in a favorable condition for the germ to develop at the time of its introduction. A germ which at one time will grow in the eye and cause inflammation will at another time be perfectly harmless. Germs which are harmless to oneself may be exceedingly poisonous to another person and cause dangerous inflammation to the eyes. For hygienic reasons the common towel should be abolished in every home.

The Border Line of Tragedy.

While a national organization for the protection of girls has not yet been perfected, the New York society comes very near to playing that role. This is in many ways the most important strategic point says New York Times. Sixteen great railway systems discharge their passengers here. Eleven lines of transatlantic steamship companies land thousands of passengers here from every European port. About ninety lines of steamships ply between New York and coast ports of this country and all over the world. To cope with this vast problem the Travelers' Aid Society has twenty-two agents, speaking twenty-six languages. To the outsider this provision would seem hopelessly inadequate. And while, during the first eight months of the year, these twenty-two agents aided over 15,000 cases of which there is a complete record, as well as about 3,000 other cases in a minor way, it is perfectly obvious that this could not have met all the necessities of the situation. As Mr. Baker puts it:

"Our work is largely done very near the border line of tragedy. If the tragedy takes place, then our work has failed of its mission. People often ask if we really rescue girls from the clutches of those who prey upon them. We do, very often. But our real mission is to prevent girls getting into these clutches and needing to be rescued."

"Certain uninitiated persons feel that our claims that women need protection in traveling are extravagant. They don't realize that we are doing something more than telling timid women what train to take! They don't know that the unscrupulous do not sit passively back and wait for their victims to come to them. They hunt them—hunt them with cunning and deliberate devices. It is a business with them. And our business is to defeat them."

When Poverty Mars Home Happiness.

If one could know the history of the average marriage, I'm sure one would find that money matters of one sort or another are at the root of fully half the disagreements that enter married life, writes Mrs. Willie, in Woman's Magazine.

Much has been said and written about this lately, and the fad now is to lay the blame either on the husband for not giving his wife a stated allowance or on the wife for her lack of business sense.

No doubt these are common contributing causes. But I don't think that these accusations get at the root of the matter. To my notion the cause is just this:

Money matters are the most difficult in the world to handle fairly. There is something inside of us all—I don't know whether its name is greed or stupidity or stinginess—but it is something that never weakens except when money is concerned. Then it sits up and makes us oversensitive, overcritical and overreaching.

No matter how much a man loves a woman, no matter how hard she works, he cannot be her supporter without feeling the superiority that her dependence on him for the necessities of life gives.

And this is not because of a difference in sex. The feeling would be there were a man supporting another man, or a woman another woman. So many, many troubles that we lay to difference in sex are really only our human likeness!

And no matter how a woman toils, no matter if she actually contributes more than her share of work to the marriage partnership, the fact that there is no just measurement of her labor, no money measurement, must always vaguely rankle must make her always weigh and compare work given for value received not only on her part, but on the part of her husband.

And I believe that the best way for a man and woman to handle money trouble is to recognize first of all that every human being is "ornery" where money is concerned.

Then, having recognized this fact, take it out and put it in the sunshine of family publicity; laugh at it, coax it, make it into a family joke, one of life's blessed, queer crookedness, and presto! husband and wife have become philosophical about one of the meanest trouble-makers between them!

I am sorry for anyone who is afraid of marriage. For it is in marriage and marriage alone that one sounds the height and depth of human liking.

There is no madness like the anger roused by the one you marry. There is no joy like the happiness of home-building. There is no frenzy equal to the grief of hurt from your mate. There is no content like the peace that comes from final married adjustment.

Marriage spells only Greatest Opportunity for deepest, fullest living, and happiness is only a by-product of its fundamental usefulness.

Said of Women.

Would that the race of women had never existed—except for me alone.—Euripides.

The finger of the first woman loved is like that of God; the imprint of it is eternal.—Anonymous.

Most women prefer that we should talk ill of their virtue rather than ill of their wit or of their beauty.—Fontanelle.

All women desire to be esteemed; they care much less about being respected.—Alexander Dumas.

Coquetry is a net laid by the vanity of woman to ensnare that of man.—Bruis.

Never say man, but men; nor women, but woman, for the world has thousands of men and only one woman.—Jean Jacques Weiss.

All that I am my mother made me.—John Quincy Adams.

But one thing on earth is better than a wife and that is the mother.—Leopold Schefer.

A virtuous woman has in the heart a fiber less or a fiber more than other women; she is stupid or sublime.—Honore de Balzac.

In every loving woman there is a priestess of the past; a pious guardian of some affection of which the object has disappeared.—Henri de Cervantes.

I have found that there is an intimate connection between the character of women and the fancy that makes them choose such and such material.—Prosper Merimee.

Women are a new race, recreated since the world received Christianity.—Henry Ward Beecher.

I wish Adam had died with all his ribs in his body.—Boucicault.

One mother is more venerable than a thousand fathers.—Laws of Manou.

Tell a woman that she is beautiful, and the devil will repeat it to her ten times.—Italian Proverb.

In love, it is only the commencement that charms. I am not surprised that one finds pleasure in frequently recommending.—Prince De Linge.

God made her small in order to do a more choice bit of workmanship.—Alfred De Husset.

Tribute to Motherhood.

Wherever the great and beautiful work of art, a home, has come into being, the wife and mother has had her paramount existence in that home though her interests and activities have not necessarily been limited to its sphere. But husband and children have been able to count on her in the home as they would count on fire in the hearth, the cool shade under the trees, the water in the well. Thus upon husband and children is bestowed the experience which a great poet gained from his mother. "All became to her a wreath!" A wreath where every day's toil and holiday's joy, hours of labor and moments of rest, were leaf and blossom and ribbon.

The wife educator is never one who is "educating" from morning till night. She is one who, unconsciously to the children, brings to them the chief sustenance and creates the supreme conditions for their growth. She is one whose desire is law, whose smile is reward, whose disapproval is punishment, whose caress is a benediction.—Ellen Key in the Atlantic.

Preventing Cellars From Freezing.

Written for Green's Fruit Grower by J. S. Underwood.

There is much loss experienced every winter because of cellars freezing. Especially is this true when there is very cold weather before much snow falls. At such times the ground freezes to a greater depth, and it is more likely to crack, and thus sometimes lets the cold clear into the cellar direct. This cracking often proves a source of danger when every other precaution has been taken and the cellar has been thought, and may otherwise have been, frost proof.

Where banking of any kind is used, this cracking of the ground by frost may be largely if not wholly overcome by spreading a little of the banking material a few feet out from the regular banking—a sort of mulch to catch snow and otherwise keep out the frost. As a general thing, if this can be done on the north and northwest sides of a cellar, it will be sufficient. High banking about the cellar will not take the place of this when it comes to severe cold and danger of deep cracks forming.

There are several ways to prevent a cellar from freezing after the frost has worked in so as to begin to do damage, but prevention is, of course, by far the best way of handling it. If a lantern is placed low on the floor of the cellar, and allowed to burn only moderately, it will go far towards hindering damage even after freezing has set in. A kettle of hot water, or two or three pails of water in a tub will also assist greatly during a very cold night. Then, too, a pan of hot coals along with ashes will hold heat for a long time.

When a cellar once begins to freeze, however, the closest attention is necessary, or more or less freezing will continue. Heavy snow-falls with brush, coarse mulch, or something else to hold it, may stop the penetration of the cold and, when there is enough of it, the snow can be piled high and serve almost as well as any more substantial banking. The snow bank should be watched closely and when, by freezing or thawing, it shrinks away from the sides of the cellar, it should be stamped down a little.

In every cellar at all likely to freeze a small thermometer should be kept, or a jar or pail of water. Water will not only "take up cold" a little or prevent freezing, but it will quickly show the presence of frost by a light skim of ice. The ice will form before vegetables are injured by the cold, so if watched closely, the water to an extent take the place of a thermometer.

To make children happy in the home does not mean that they must have their own way, or that they must be petted and humored until they are spoiled. A spoiled child is seldom happy, and it always makes everybody else unhappy. The kindly common sense treatment is what makes good and happy children.



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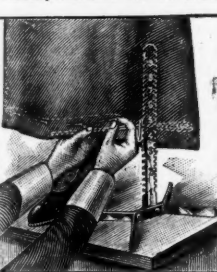
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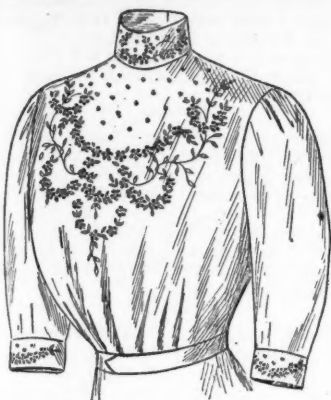
HANDIEST help ever invented for home dressmaking, as it assures absolute accuracy and style in the correct "hang" of the skirt. It can be adjusted to any height and easily used by professional or beginner. Heretofore all skirt gauges were only skirt makers, but the EZY-HEM enables a woman to turn the skirt the right length and pin it up all ready to measure, marking, and turning to a minimum. It prevents expensive mistakes, saves time, work, worry and more than its cost on the first skirt made. It is made of nicely polished, nickel plated steel and will last a lifetime. It is also an excellent chalk marker.

DIRECTIONS—Set gauge on the floor so that the skirt will fall over the long wire, making it come under or inside of the skirt. Fold the goods under, so that the long wire will come inside the fold, as shown in illustration No. 1 and pin the hem in place. Slide the gauge along and repeat. The Ezy-Hem can easily be used as a chalk marker also. Place the gauge with the long wire finger outside and against the goods, and simply draw chalk along the wire lengthwise, using the wire as guide or rule.

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10-10-27



6312



6332



6323



17-10-25

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10-10-27—Comb and Brush Case. Such a case is a necessity for the woman who travels. White or tan linen is suggested, and the embroidery may be done in white or colors. Price of pattern 10 cents.

6332—Misses' and Small Women's Dress. Cut in sizes 14, 16 and 18 years. Size 16 years requires 4 1/4 yards of 36 inch material. Price of pattern 10 cents.

6323—Ladies' Tucked Shirt-Waist. Cut in sizes 34 to 42 bust measure. Size 36 requires 2 3/4 yards of 36 inch material. Price of pattern 10 cents.

10-10-25—Collar Bag. This bag can be made of tan linen and embroidered in colors, or in white linen and worked in white. Price of pattern 10 cents.

Order patterns by number and give size in inches. Address Green's Fruit Grower Co., Rochester, N. Y.

A Practical Woman's Way.

She uses salt to remove the stain made on silver by eggs.

She takes the trouble to examine well the canned goods she buys. If the cans bulge outward it is a sure sign that they have not been properly sealed and that the air has got in.

She washes tablecloths and napkins before hemming. Threads for evening are then easily drawn and the linen is soft and easy to sew.

She uses kerosene in the water with which she washes woodwork and is prodigal in the use of ammonia for cleaning the kitchen sink.

She has a pair of scissors hung on one side of the sewing machine and suspends an open-mouthed bag on the other for snippings.

The Value of Old Newspapers.

Written for Green's Fruit Grower by Leona Dix Barnes.

I find so much use for old newspapers in the kitchen that I wonder how any housekeeper can get along without the daily paper for this use alone.

When doing up the morning work I find them convenient and labor saving, in fact I use them all day long for this thing or the other as they suggest themselves. At the table it is so easy to slip a paper under the small child's plate and then remove it when the meal is over with the linen as fresh as ever. Newspapers make excellent hot dish plates. Fold them several thickness, work the top shut and quilt them together in small circles with long stitches on the sewing machine. Then pink or scallop edges with shears. When you want them clean, tear off a sheet.

Paper will soon find its way on the table of the ever busy housekeeper. We have already begun the use of paper plates and napkins at our club socials to save dish washing and that is the bug bear of work for nearly every housewife. Newspapers will always hold their own for the cupboard and cabinet shelves, with a sheet of the perforated shelf paper pasted on the edge, they make a very neat appearing cupboard. Then they can be freshened so often which makes them even better to my notion than oil cloth.

When baking, I like to spread a couple of newspapers around the kitchen cabinet where I am likely to drop flour, etc. They are so easily gathered up and burned, dirt and all. Also when churning. When frying meat, etc., they will catch all the grease that happens to pop to the floor and will save mopping the floor.

When taking up ashes, if you spread a paper, they will catch all that would otherwise fall to the floor, and it is so much easier to walk to the door and shake a newspaper, than to clean up with broom and dustpan, besides the floor looks so much better afterwards.

When filling the lamps a newspaper upon which you place them will catch all oil that would otherwise be a "mess" to clean up. Sometimes it is wise to place one on the floor too, for lanterns are so hard to fill and one might have an accident.

When the weather is cold it is very handy to dress a chicken in the house if you place a couple of newspapers under the scalding bucket. Then lay the chicken on them and put feathers in bucket. All is easily gathered up and burned.

It is a very wise idea to always keep the old papers in a pile on a convenient shelf in the kitchen. You will also want them for singing the chicken, besides a goodly supply is always in demand for market baskets. Try my ideas and see how much easier they will make your work.

Women in Business.

Editor of Green's Fruit Grower.—I spent nine years of married life upon a little farm, encountering a great deal of practical experience, and every year brought new ideas. Then we moved into town, and for the last six years, I have been taking a course in what might be called a business education, the practical work of a notary and insurance office and grocery store combined.

The letter in the August Fruit Grower interested me, because while the writer evidently means all right, she has so entirely a one-sided view.

Business is practical common sense boiled down and flavored with good cheer, but dear woman, do not think it can be learned easily. It is not so hard when you are simply employed at a certain task and paid for what you do. That is not business, it is employment. The lady

writing was lucky enough to have a sum of money, seemingly her own to invest, and questions whether she should have invested it toward her home or solely for her own benefit in a first mortgage. We wonder, if the money had come to her husband if she would have expected him to have considered the same question. There is no sex in business. The question which arise, the responsibilities of legal paper, banking bills of thirty and sixty days, freight and orders of goods are too serious problems to be considered lightly. Then too, there is the idea that in face of all conditions, weather, health or feelings, the business must be kept going, and some one has to do it.

There is much to be said on the question, but often it seems that we do not realize the responsibility and the average person reading cannot understand the side expenses, lights, heating, location, spoiled goods, work of keeping clean and sanitary which come with the work of the ordinary business store of today. There are so many things to be considered. Competition means so much. The help problem is no small question and sooner or later in a successful work of almost any kind it has to be considered. Dear woman of the farm or of the little village home, with your little children growing up around you, let me say this, talk over the business that comes each day, learn what you can of the business, of papers, deeds, notes and mortgages, interest, etc., that are necessary in the work that supports your home. It never hurt any one to understand these things and often it is necessary they should learn. Always it is better when they know.

But do not go into business thinking it easy, or think that the woman in the tailor-made gown has the easier work to do. There is work that comes to us all and it is well to improve our opportunities but most of all it seems to me that each one of us is given a place and a work, and home making is one of the chief of these, and where ever it is, we should try to do that work so well that some one will need us right there.—Nellie Fiske Hackett, Wisc.

LAW ON APPLES.

Quality Must be Marked on Packages. Severe Fine for Misrepresentation of Quality, According to New Food Law.

An announcement from Washington makes it plain that the Federal food law applies to apples, and that the quality must be marked on packages. The act says an article shall be deemed misbranded, "if in package form the quantity of the contents be not plainly and conspicuously marked on the outside of the package in terms of weight, measure or numerical count; provided, however, that reasonable variation shall be permitted and tolerated and also exemptions as to small packages shall be established by rules and regulations made in accordance with the provisions of section 3 of this act."

No prosecutions are to be made under the new sections of the law until after eighteen months from March 3, 1913, which gives ample time for the Federal committee on rules to formulate its rules and transmit them to shippers and producers affected.

But R. G. Phillips, secretary of the International Apple Shippers' Association, says that the eighteen months' leeway does not extend to the second part of section 8, which provides that an article shall be deemed to be misbranded "if it be labeled or branded so as to deceive or mislead the purchaser, or purport to be a foreign product when not so, or if the contents of the package as originally put up shall have been removed in whole or part and other contents shall have been placed in such package."

The penalty for the first violation of this section is a fine of not to exceed \$200 and for the second offense a fine not to exceed \$300, or imprisonment not exceeding one year, or both in the discretion of the court.

Look for things to be glad about. Insist on being happy. It is your duty; it costs effort, but it pays. Happiness comes only through making those around you happy. Get the happiness habit without delay.

Sir Thomas Lipton.—My maxim in early life was "Honor Thy Father and Thy Mother." It brought me consummate happiness and has been the inspiring force of whatever success I may have gained. Had I not been able to see the bright side of things then, all my work and plans would have been fruitless and I would have been useless to my parents. A genuine respect and love for father and mother and a determination to view things in an optimistic way—these are the secrets leading to success and their observance brings happiness. "There's no fun like work," has been my motto throughout my business career and is one in which I most firmly believe.

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A Mantle of Green.

Written for Green's Fruit Grower by Eleanor Cone.

In making the drive to our county seat I used to pass a farm house whose bleak, desolate appearance made me speculate much about the inmates. The house was small and old-fashioned, with a kitchen lean-to across the back. It was unpainted and its bareness was unrelieved by porch, vine or flower. Not a single tree or shrub grew near the house, and most of the yard was occupied by tumble-down sheds, neglected machinery and rubbish.

I passed the house frequently during one spring and summer, and each time the place seemed to look more forlorn. Then, for over a year I did not pass that way, for a bad washout occurred on the road, compelling me to take another route. I heard, however, that the family moved away, and that John Corwin and his wife had become occupants of the little house. As I knew them to be cultured and refined people, I felt regret that fate had led them to so comfortable and ugly a place.

When I chanced to make my next trip over that road and came in sight of the little farm, I gasped with surprise. I thought the shabby house had been torn down and replaced by a pretty, vine-clad cottage. But when I drew near and looked very close I discovered it was the same little house, without even an addition. To be sure a roomy arbor or pergola had been built over the kitchen door, which in sunny weather would answer every purpose of a porch; also a small platform, with rustic sides and roof, gave the appearance of a porch at the front door. The house seemed a fairy bower of vines and flowers, and although time was pressing I could not resist the temptation to stop and renew my acquaintance. Mrs. Corwin came forward to meet me as I drove up to the side gate and cordially asked me in.

"What magicians wand have you been using, to turn this place into a fairy palace, Rose?" I asked, as we walked up the little path.

"I think we have bettered it a little, though we didn't have any wand," she laughed, "and what was worse, we didn't have any money, and John could spare just a little time."

"The vines and flowers make it beautiful," I said, "but what I can't understand is why the house looks so much larger; of course the pergolas help, but they couldn't make so much difference."

"No, it is the way John planted the vines at the windows, and the awnings he built out from the gable ends. You see the half story upstairs was so dreadful hot, that John took out the clapboards near the top in each gable end and filled the space in with strips. Then he built the awnings out over for protection from rain. The vines you see are set out from the side of the house, directly under edge of awning."

"And when they cover the trellis thick as these do, it looks from the road as though the side of the house extended that much further," I said, beginning to understand.

"Yes, and they make the house cooler this way by giving more shade and letting in more air. You see, over the west windows, where there is no awning and the eaves are low, John used wire fencing for a trellis and let it run straight from ground to edge of eaves."

"It certainly has a beautiful effect. How did you make your vines grow so fast and give so much shade in one summer?"

"You know I told you we had no money we dared spend for other than necessities, but we went to the woods and found Virginia creeper and trumpet vine, and brought their native soil to set them in. Then I had saved some seeds, moon flower, morning glory, velvet beans, etc.

and by giving them rich soil they made a wonderful growth."

"They have indeed. It is strange that anyone should neglect to plant vines when they work such wonders."

The dilapidated sheds about the yard had all been torn down, and the material used to put up two or three neat and tasty out buildings. I noticed that a trellis on each one supported a grape vine, and the fence that had been built to make a division line between lawn and barnyard also served as a support for grapevines.

The flowers that had shown so conspicuously from the road were after all not numerous, but they were placed to the very best advantage in two long boxes. One of these boxes extended along the side of the pergola at the kitchen door, the other was a window-box placed between vines and window, and filled with plants that do not like too much sun.

"You see I like to look at my flowers and so put them so I could see them from both the inside and outside," said Rose.

"But seems to me it must have been a great deal of work and expense to build the flower boxes and the rustic work and awnings, and all the rest?"

"The flower boxes did not cost much and I made them all myself. You see they are only drygoods boxes set end-to-end, two for the window and three for the arbor, but one would never suspect it for the trailers cover the sides. I found a good stout board to set each one on, or the bottoms would not have been strong enough, and I strengthened the sides with strips and with wire. You see I drove two short posts in the ground to set each box or set of boxes on; John brought the material for the rustic work from the woods, and made it all as simple as possible, for the vines cover it. The wood awnings or shades up in the gables took a little time but all the material was from old buildings about the yard that we tore down."

After a little more time in admiring the many little contrivances John and Rose had invented to make their house homelike and beautiful, I bid my friend goodbye and set out on my delayed errand, wondering how I could best turn to advantage in my own home some of the things I had learned.—Cleveland, Fla.



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Do not delay in sending your subscriptions if you desire this valuable premium.

Tried Recipes.

Citron Cake.—Two cups dark brown sugar, one cup molasses, one cup butter, one cup pork drippings (not too salty) four eggs, one cup sour milk, one cup citron shaved fine, one cup raisins and enough flour to make a firm batter. If liked spices may be added.

Creamed Turnips.—Wash turnips and cut in cubes. Cook three cups cubes in

boiling, salted water until tender; strain and add one cup white sauce.

White sauce is made with one cup milk and one tablespoonful each of flour and butter.

Delicious Pork Cake.—One pound boiled pork minced fine, one pint boiling water over meat, one pound raisins, one pound citron, one pound currants, two cups sugar, one cup molasses, one teaspoon soda and one each of cloves, cinnamon, allspice and nutmeg. Bake slowly for one hour. This will keep for weeks and the older the better.

Dutch Apple Cake.—Two cups sifted flour, one-half teaspoonful salt, two teaspoonfuls of sugar, rub sugar and butter through flour (add more milk if too thick). Take two large apples and cut them into eights. Pour batter into pan and arrange apples on top. Sprinkle on them two tablespoonfuls granulated sugar, little cinnamon and little bits of butter. Serve with lemon sauce or make custard and pour over when cake is half done.

Cream of Celery Soup.—Two cupfuls of white stock, three cupfuls celery cut in inch pieces, two cupfuls boiling water, one slice of onion, two tablespoonfuls butter, two tablespoonfuls flour, two cupfuls milk, one cupful cream, salt and pepper to taste.

Parboil celery in water ten minutes, drain, add stock. Cook until celery is soft and rub through a sieve. Scald onion in milk, remove onion, add milk to stock, add cream and season with salt and pepper.

Chestnut Dressing.—Shell one quart of chestnuts, large size, and scald them until the brown skins are soft. Drain them, turn on to a towel, cover with another towel and rub with the hands until they are blanched. Wash, cover with boiling water and cook slowly until tender. Drain and chop fine. Add a level teaspoonful of salt, a saltspoonful of pepper, a rounding teaspoonful of butter melted. Mix and use as a stuffing for a young hen turkey.

Pumpkin Pie.—Cut up a part of a pumpkin, wash, and boil with the rind on until well cooked. Then run through a colander to separate rind from pumpkin. To make two pies take a quart of pumpkin and mix it with the following: Two eggs, two-thirds cup sugar, one teaspoon ginger, one teaspoon cinnamon, a pinch of salt and pinch of cloves, if liked. Enough sweet milk to bring whole to right consistency. Pour on crust in tins and bake in moderate oven until browned.

Kitchen Wrinkles.

Current jelly is excellent for serving with game.

Persons who live mostly on vegetables have the best nerves and the best complexions.

Fried sausages or force-meat balls make an appropriate garnish for roast turkey, capon or fowl.

Fine table salt rubbed on marble will remove a stain unless the latter be of too long standing.

To remove the odor of onions from a knife, dip it into running cold water, then dry and polish it.

Small pickle, olives and capers, minced very fine, is an excellent seasoning for a salad dressing.

Mint either with or without parsley makes the best sauce for roast lamb, whether hot or cold.

Boston baked beans can be greatly improved by adding a cupful of sweet cream the last hour of baking.

Hot water tends to set the odor of onions on knives, hands, etc., and for this reason should be avoided.

Bacon should be soaked in water for three or four minutes before being fried, to prevent the fat from running.

Carrots and onions will be better if soaked in cold water for twelve hours before using, to draw out the strong flavor.

Carrots should be cut in slices instead of cubes, because the darker outside part is richer and better, and if cut in slices it is more equally distributed.

Red pepper is an excellent condiment. Malaria, intermittent fever or congestive chills cannot endure the presence of red pepper. It should be upon every table.

A wealthy man in Trinidad got a note from the Black Hand, reading as follows: "If you do not send us \$10,000 we will kill your wife." The millionaire replied at once to the address given: "Nothing doing on the money, but I'd like to hear from you further. Your proposition interests me."

It was Autumn, and incessant Piped the quail from shocks and sheaves. And, like living coals, the apples Burned among the withering leaves.

—Longfellow.

Tre and leave lower tudes (100,0 mated the ca The cels, in be eas branch pores perspi know The is very estima summe the for from th alone a sustain The oxygen active smother harden Christi by keep gas will The moistur weather the root winter r anchor little el tips of t of the t ground. Trees and the the time steadily the time rainy we The grow by mids cut off o The leav insects. A long twigs ma Careful place of or length and stems food. Th nutritious it off. W finds the sealed du breathing Each les and gases, into nour from whic fruit and essences a some indi and medic The leav ment of th They prep and in the more warm a complex containing The tree gurgated wh Each leaf maple is est presenting an acre. The clos reduces ev process and much of its liant foliage decomposit substance in substance is untold milli exactly sili

The tim Central, pri comparison travel then thirty and a train, Alban Empire Stat and thirty-s fare, Alban In 1901 the route, Alban rail to Syrac and Lake E \$10.00, time

November.

Written for Green's Fruit Grower by
Harriet Saeffer.

The glad Thanksgiving month has come,
When, garnered in, the bounteous store
Awaits our use. Ah, yes, we know
There's all we need, and even more.

Thanksgiving day we hail with joy,
And give to God our grateful praise,
For all the blessings of the year
And His kind care in all our ways.

O may we not forget, this day,
Those who have not so much as we,
In our remembrance of the poor,
The gracious smile of God they'll see.

How Trees Live and Die.

Trees literally breathe, inhaling oxygen and exhaling carbonic acid gas. The leaves are the lungs of the tree. On the lower surface of the leaf are vast multitudes of minute mouths or openings (100,000 to the square inch, it is estimated) which admit the air and expel the carbon.

There are other openings, called lenticels, in the bark, dots and lines which can be easily seen on the twigs and smooth branches, which help the leaves just as the pores of the skin help the lungs. The perspiration of plants is technically known as transpiration.

The exhalation of water from the leaves is very great. That from a large oak is estimated at 150 gallons a day during the summer. The evaporation of water from the forests is fully as important as that from the ocean, if not more so. The ocean alone could not produce rain enough to sustain vegetation.

The roots also are active in taking oxygen from the air, which is always active in porous soil. A tree may be smothered by piling earth on its roots or hardening the soil around them, says the Christian Intelligencer; it may be drowned by keeping its roots water-soaked. Coal gas will choke it.

The tip ends of the tree roots absorb moisture from the ground, even in zero weather, but the passage of water from the roots up the trunk is retarded until winter relaxes its hold. The largest roots anchor the tree to the soil and do but little else. The slender rootlets and the tips of the large roots collect all that part of the tree's food which comes from the ground.

Trees eat and drink through the leaves and the rootlets. While they breathe all the time, day and night, rain or shine, as steadily as we do, they feed only part of the time. They sleep in the night, during rainy weather and throughout the winter. The growing season is very short, ending by midsummer. The summer drouths cut off or diminish the supply of water. The leaves are battered and eaten by insects.

A long period of rest is essential that twigs may harden and the wood ripen. Careful preparation for winter takes the place of further thickening of the trunk or lengthening of the limbs. The twigs and stems and roots must be stocked with food. The tree strives to take in all the nutritious parts of each leaf before it casts it off. When winter comes it generally finds the tree ready. The lenticels are sealed during the winter to prevent the breathing away of the tree's moisture.

Each leaf is a laboratory where minerals and gases, water and sunshine are made into nourishment for the living tissue, from which comes wood, cork, flower, fruit and a large number of gums, oils, essences and perfumes, which have become indispensable in art, manufacture and medicine.

The leaves take charge of the nourishment of the tree as soon as they open. They prepare food only in the day time and in the presence of the sunlight; the more warmth the more work. They make a complex substance known as starch, containing carbon, oxygen and hydrogen. The tree finds its growing season inaugurated when it is supplied with foliage. Each leaf is a builder. A large sugar maple is estimated to have 432,000 leaves, presenting to the sunlight an area of half an acre.

The closing of the leaflets at night reduces evaporation, which is a cooling process and enables the tree to save much of its heat. The cause of the brilliant foliage in the autumn is the chemical decomposition of the useless mineral substance in the leaves when the living substance is withdrawn. No two of the untold millions of leaves in the forest are exactly alike.

Glimpses of History.

The time-table of the New York Central, printed in 1844, gives ground for a comparison between the conditions of travel then and now: In 1844 it took thirty and a half hours to travel by mail train, Albany to Buffalo. In 1901 by the Empire State Express it takes five hours and thirty-seven minutes. In 1844 the fare, Albany to Buffalo, was \$11.50. In 1901 the fare was \$6.15. In 1844 the route, Albany to Niagara Falls, was by rail to Syracuse, thence via Oswego Canal and Lake Erie; distance 333 miles, fare \$10.00, time thirty-two hours. In 1901

the distance by New York Central is 305 miles; fare \$6.15, time six hours fourteen minutes. In 1844 the cars were lighted with candles; there were no sleeping cars; meals were obtained at primitive taverns, and the physical condition of the roadway made long and tiresome delays necessary, and a journey an irksome undertaking.

Pointed Paragraphs.

Lazy men would rather find fault than find work.

No woman is supposed to look her age, no matter what it is.

Even experience falls down when it tries to teach a fool.

What a girl likes about a young man is usually what her mother doesn't.

A man may make a guess at what a woman is going to do, but that is his limit.

Once in a great while a mother manages to persuade her daughter to marry the kind of man who will make her happy.—Exchange.

Horse Feeding.

No horse requires more than one full feed of hay once in twenty-four hours. When farm horses are working every day they are subject to just this condition, because they have not time either at their morning or noon meal to eat too much hay, but in winter they often stand all day with hay before them all the time.

A horse to be in perfect health should have the stomach emptied of the previous meal for two or three hours before he is given another. If such is not the case, digestion will not take place in a perfect manner, and disease will likely result, says H. G. Reed, V. S., before Ontario Farmers' Institute. There is a remarkable sympathy between the stomach and the lungs, because of the fact that the same nerve trunk supplies nerve force to both organs. When the stomach is deranged from improper feeding the lungs are liable to become sympathetically affected, and heaves often result. Care should also be taken that a horse should be fed no dusty or musty hay. This dust is as light as air, and the horse in breathing draws it right into the lung tissue with every breath, and this substance, being an irritant, is very prone to develop heaves. If no better hay can be obtained, the dust should be laid by sprinkling with water, when the horse will not breathe it, but it will be swallowed with the feed and probably do him no harm, but when at all possible only bright, clean hay, free from dust, should be fed to horses. Again, no horse is in fit condition for active exercise with the stomach distended with hay, because the stomach, situated as it is, right behind the lung space, if full, bulges forward into the chest to such an extent that the lungs have not room to properly expand, and cannot perform their functions properly; and anything that interferes with the function of the lungs predisposes to heaves. In many cases if farmers would feed one-third less hay to idle horses in the winter months they would come out in the spring in better condition, and we would have fewer cases of heaves in the country than we have at present. Indigestion is another disease usually produced by irregular or improper feeding, such as a horse getting access to the grain bin.

In fact, no horse should be allowed to stand for even a day without exercise, if the health of the animal is valued by the owner, and it is just because those two most important adjuncts to health, "careful feeding and regular exercise," are not properly attended to that we have so much sickness among farm horses, especially in the winter months.

Harvesting Carrots.

A Vermont grower writing in the American Agriculturist describes his method of harvesting carrots as follows: "Late in October I mow the tops off close with the scythe, rake off, then with the hoe clip close and rake off again. Then take a one-horse plow and plow two furrows to the row. The last time run very close to the carrots. I then take a garden rake and push them into the furrow. They are then ready to pick up and bag. This is the fastest way to harvest I know of. I have several times, with a man to help me, harvested and put into the cellar or storeroom over 100 bushels in eight hours."

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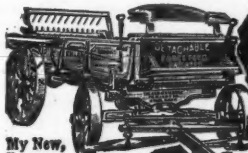
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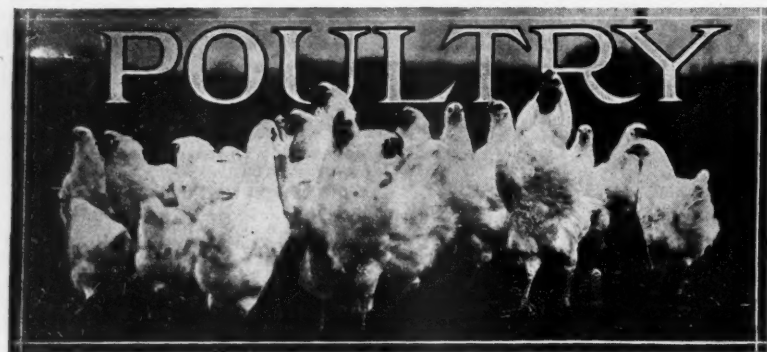
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Poultry Notes.

Never expose fowls in blustery, snowy weather.

Hens lay a few more eggs when males are not used in the pens with them.

Egg production is not measured so much by the quantity as by the quality of the food.

When wood ashes are strewn over the hen house floor the manure will lose much of the ammonia by the mixture.

A light morning feed for the flock is best because it keeps them hustling through the day.

That good layers are great eaters. A bird must have capacity to eat and digest a great amount of food if she is to lay a great number of eggs.

Roots of all kinds can be fed cooked or raw, but they should be chopped fine.

That hens must be fed and fed liberally if one expects eggs in large quantities, especially winter eggs.

It is poor policy to change the quarters of hens or pullets while laying, for it usually checks or stops egg production.

Health is a thing essential in the flock, and to insure health keep the poultry house clean, and use lime freely both in the house and all about the yard and runs. It will pay to be liberal in the use of lime. It is also important to have plenty of sunshine in the house.

Meat in some form should be supplied to the fowls. They need protein, and in beef scraps this is found in good quantities. Good beef scraps contain from 50 to 60 per cent. It should be well aired and clean.

Good housing is one of the essentials for egg production and consequently should be given proper consideration. A hen that is comfortable and happy is more apt to be profitable than one that is uncomfortable.

Where poultry and small fruits are grown on the same land the droppings are often valued at 50 cents per hen per year. Probably the value of hens for destroying insects is almost as great as the manure value.

Charcoal is a very safe and valuable adjunct to your feeding variety. A little of it goes a long way, but that little tends to keep everything in health. If the coal is hard to obtain burn some corn and feed that while it is fresh at least twice a week and it will be of benefit to all partakers.

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Millions Lost in Egg Shipments.

"Every year there is a loss of millions of dollars in bad eggs," says the Department of Agriculture. The direct result of haphazard methods of production, marketing and shipping which are now in vogue in many states. The great part of this loss is due mainly to ignorance or indifference on the part of the farmer and producer and only a small part is caused by carelessness on the part of the buyer and shipper.

Dressing Turkeys for Market.

Turkeys to be dressed for market should not be fed for twenty-four hours and should be killed by hanging each up by the shanks, stunning it with a sharp blow on the back of the head and bleeding it by cutting the big arteries in the back of the throat, reaching the knife in through the mouth. They should be picked dry and the flight feathers of the wings and the main feathers of the tail left in. The head should be left on and the fowls not drawn.

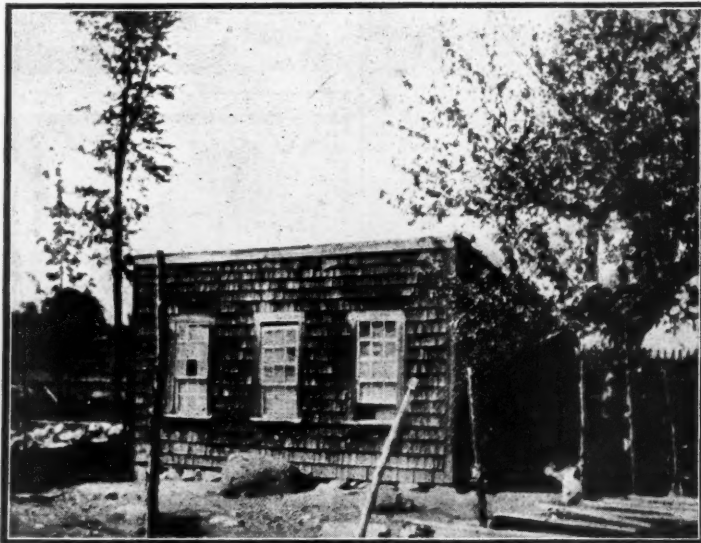
The Egg.—Now it seems we are not to trust even nature's wrapper to keep food

sary and it will pay for itself in a very short time in the reduction of the feed bill and the increased number of eggs produced when the hens are fed this stimulating and nourishing food. If you have no bone cutter, the chopping of the bones with an axe is the next best way and, though tedious and laborious, it will pay to do it. Where raw bones are difficult to get one must fall back on the commercial crushed bone as sold in poultry supply houses.

Plant More Quinces.

Considering how easily quinces can be grown and the great demand for the fruit, the fact that the fruit is almost a rarity in many city markets has often been commented on. What experience the writer has had with the few trees under his care, the quince is a most reliable fruit. It never missed a crop in the many years it has been cultivated, and the same is the case with trees in neighbors' grounds. Some time ago there was mention made in one of our agricultural papers of a fruit grower in New York State who had an orchard of some 1,200 trees, which had borne continuous crops for over 30 years. The crop for one recent year is reported as 400 barrels selling for \$1,500.

The writer has found that the quince does well in any good soil. He has had them in deep loam and in that so heavy as to be almost clay, and in both cases the trees grew well and bore well. Last year a neighbor who had but a single small bush of quince in his small garden gathered from it a bushel of fine fruit. My own observation of the quince leads me to prefer planting it on a deep loam. The deepness insures moisture, which the bush dearly desires; then, too, the looseness of loam admits of the conserving of moisture to some extent, aided by surface cultivation or a mulching of grass or hay. Moist soil is of more importance to the quince than to many other fruits



A Good Poultry House.

The above illustration shows a good poultry house on a New Hampshire farm. It faces the south and there are about the right number of windows. Too much glass causes an uneven temperature—liable to be too warm in the daytime and too cold at night. There is a good large run and an apple tree for shade. Notice that everything is neat and orderly, which counts for a lot in the poultry business. Poultry kept under these conditions will invariably pay a satisfactory profit. Notice that plums, peaches and other fruit trees do their best in poultry yards.

germ-proof. Fresh-laid eggs may be full of germs according to an investigator who avers that the germ which causes disease in a fowl may be transmitted to the egg.

There are used daily in the United States about 50,000,000 eggs.

"Oh, no, Parson," replied the old hypocrite, solemnly, "I ain't stole no turkey, sah."

"No any chickens, Brother Dick?" queried the minister.

"No, sah," answered Dick, "no chickens."

"Thank the Lord, Brother Dick!" exclaimed the minister. "That's doing well, my brother!"

Dick watched the parson depart, then immediately relieved his overburdened conscience by saying to himself:

"If he'd said ducks, he'd a had me!"

Raw Bone for Poultry.

Perhaps no other one thing you can do for your poultry, that costs so little money or labor, is so valuable to all the fowls, as supplying them with fresh, raw bone.

Raw bones have more or less meat on them. Raw meat is valuable in egg production and better than all the egg foods and egg compounds that can be given to the laying hen. Nothing will start a hen to laying sooner, or keep her at it longer, than a generous ration of raw meat two or three times a week. To cut green or raw bone properly a bone cutter is neces-

because it is fibrous rooted, its roots not penetrating far below ground. It is essential to consider this when planting the quince.—Practical Farmer.

INVESTMENT OF \$60,000,000 IN MONROE COUNTY, N. Y.

State Official Tells of Wealth of Farm-lands. Crop of Apples Enormous. Unequaled per Acre in any part of Country, west of Missouri River.—Benefits of Farm Bureau Outlined.

Monroe County yields more apples to the acre than are harvested in all the golden empire west of the Missouri River.

That is what Calvin H. Huson, state commissioner of agriculture, told farmers who went to the Chamber of Commerce to hear the merits of county farm bureaus outlined.

The last census proved that Monroe grows more corn to the acre than does Iowa or Illinois.

"It showed that more wheat is cultivated to the acre than in Kansas or Nebraska.

"More oats are grown in this county to the acre than Illinois or Minnesota.

"The six thousand farmers in Monroe county represent an investment of \$60,000,000, with an annual production of \$11,000,000 and an incumbrance of only \$5,200,000.

"Can you tell me of any commercial enterprise in your cities," asked the Commissioner, "which has the same investment and a similar bonded debt?"

Trees on Line Fences.

The following is taken from Washburn's work on Real Property and is a proper statement of the laws in regard to the rights of adjacent land owners.

Trees which stand wholly within the boundary line of one's land belong to him, although their roots and branches may extend into the adjacent owner's land. And such would be the case in respect to the ownership of the fruit of such trees, though grown upon the branches which extend beyond the line of the owner's land. And trespass for assault and battery would lie by the owner of the tree against the owner of the land over which its branches extended, if he prevented the owner of the tree, by personal violence, from reaching over and picking the fruit growing upon these branches, while standing upon the fence which divided the parcels. But the adjacent owner may lop off the branches or roots of such trees up to the line of his land. If the tree stands so nearly upon the dividing line between the lands that portions of its body extended into each, the same is the property in common of the landowners. And neither of them is at liberty to cut the tree without the consent of the other, not to cut away the part that extends into his land, if he thereby injures the common property in the tree.

Driving White Grubs out of Peach Trees.

Mr. C. A. Green:—I want to tell you how I cleared the white grub out of my peach trees. First I got after them as advised in your paper but they were burrowed in so far I could not pick them all out, so I tried an experiment of my own that brought every grub tumbling out. I banked the earth up and left a hollow around the trees which I filled with soap suds. It was not long till every grub was out of that tree. When the water soaked into the ground there were all the grubs lying at the bottom of the tree. Every week I give it a dose of the washing suds. I wish you could see the tree now. You would think the leaves were oiled they are so green and juicy.

I think your paper is one of the greatest papers ever printed. You give so many pointers to your readers. I saved my grape vine this summer by spraying with Paris green which I saw recommended in your paper. It is good. For two years before there was not one leaf left on the vine. They were all eaten away. But this summer the leaves are all there.—Nath Dunseath, N. J.

Locust Borer Remedy.

A complete description of the locust borer and methods for its control may be obtained from Circular No. 83 of the Bureau of Entomology, U. S. Dept. of Agriculture, Washington, D. C., which is written by A. D. Hopkins in charge of Forest Insect Investigations. The bulletin contains photographs of the borer.

Will Various Kinds of Fruits Make Good Cider or Good Cider Vinegar.

A subscriber of Green's Fruit Grower says that pears are plentiful in his locality. He asks if they and other fruits aside from apples will make good cider or cider vinegar.

Reply: Cider is the name given to the juice of the apple, therefore the juice of the pear, peach, plum and quince might not correctly be called cider, but they could be called pear or peach cider, etc. The juice of nearly all of our hardy northern fruits will make a certain kind of cider, and will make vinegar similar to that of apple cider. Broadly speaking, vinegar can be made of almost any liquid that contains sugar. Honey mixed with water will make vinegar. The juices of the grape, strawberry, raspberry, blackberry, elderberry, will make good vinegar. Water sweetened with sugar will ferment and make vinegar.

Many people having a barrel or keg of cider vinegar replenish it and renew their supply by pouring into it daily or weekly sweetened water secured by the clearing out of pans of honey comb, maple syrup or the sweets left in the canning or preserving season, soured wines or grape juice, and various things of similar character. In this way they can so far replenish the vinegar barrel that it will accumulate vinegar. There will be more vinegar in the barrel at the end of the year than there was at the beginning.

While soured lemonade, grape juice or other similar products are disturbing to the stomach when taken in that condition, when poured into the vinegar barrel they will make a healthful vinegar.

Persian Walnuts in Connecticut.

Green's Fruit Grower:—I am sending you by this mail an English Walnut that I have raised. The tree is ten years old and bore for the first time. It was from reading articles in your publication which caused me to plant the tree.—E. F. Godfrey, Conn.

The Economy of Power Farming.

By Douglas Malcolm of the I. H. C. Service Bureau.

Each new step in the development of farming marks a new alliance between the producers in industry and the producers in agriculture. This interdependence was shown in the recent mammoth power farming demonstration, held during the week ending September 13th at Fremont, Nebraska, under the auspices of the Fremont Commercial Men's Association. In a way this demonstration typified the new era which has cast its mantle over the commercial world.

So strong has this underlying principle of business taken hold of the interests which deal directly with farm industry that at the request of the Commercial Men's Association, backed by the influential Agricultural Press of Omaha, 16 of the largest oil and gasoline tractor manufacturers, and as many more plow companies loaned the services of several hundred of their employees and the use of 40 odd engines with even more plows for an entire week in order that an extensive object-lesson might be given in cheaper crop production.

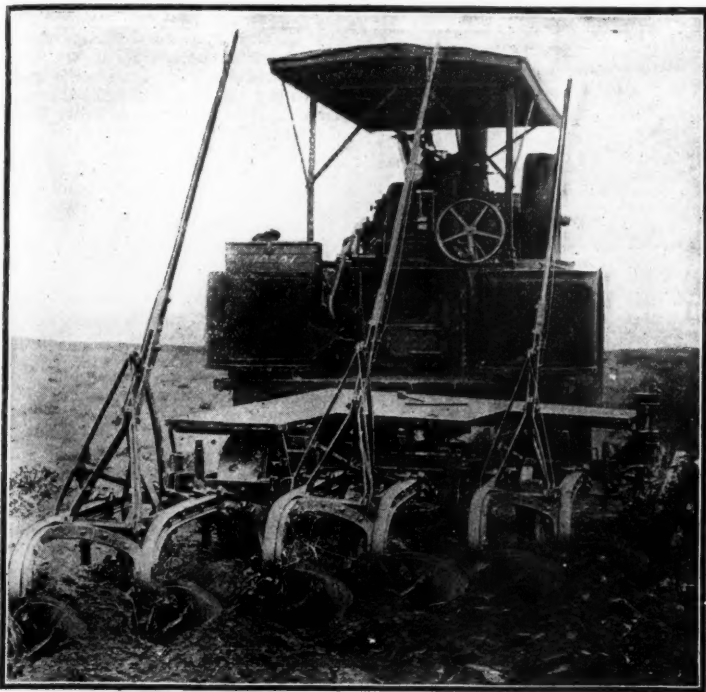
Farm machine demonstrations are not new things. In the early days when agriculture was just finding itself, when the reaper was a novelty and the threshing machine a curiosity, demonstrations were frequent and fierce. Later on, when more complicated machines became necessary,

to me, and not a cents worth of damage to any vegetable in the garden that I can discover. What it might have done, had there not been an abundance of grub worms, I am not prepared to say. The space covered comprised two small city lots, and grew fourteen different varieties of the ordinary vegetables for a home garden. The mole worked everywhere. Under nearly every potato hill was a hole leading up to it from below, and the purpose was manifest in the entire absence of the grubs. Therefore, hurrah for one ground mole anyway!—A. F. Nagler, Mich.

Subirrigation in Missouri.

Editor of Green's Fruit Grower:—Having just passed through a great drought, I thought it would be of interest to the readers of Green's Fruit Grower to hear of my experience in subirrigation.

Two years ago we also had a drought, so I thought why not use the drain tile I have on my fruit farm to irrigate with, so I had a well of 125 feet made at once in order that I might be prepared for another drought. This year, about July 18, I put in a pump and put my sprayer engine to work, putting a barrel over the tile that I had already prepared. To prevent the water from flowing down grade I put in "shutoffs," which I also had already and which are very simple. I dug down and at the joint of a tile would punch a hole with a small hammer just large enough to



Plowing by Steam in New York State.

demonstrations became an almost essential feature of their introduction.

Fodder will be scarce this winter and horse feed will be high. On this demonstration field were a dozen small outfits which could be bought for the price of six or seven horses, and they could do the work of from 12 to 15, whether the work consists of plowing, drilling, harvesting, hauling, logging, making roads, or baling hay. They can turn over an acre six to seven inches deep for from 40 cents to 50 cents, and they can drill it for even less; they can haul the harvest in from the wheat field or the corn field with a speed which is rapidly solving the harvest-hand problem; they can handle the disks and drills in such a way as to turn out a seed bed that even the intensive European farmers would envy; they can, as a well known agricultural college professor said, "perform every operation in wheat growing, from plowing to threshing and conveying it to the market, and every operation in corn growing but cultivating."

The difference between motor power and horse power is that when a tractor quits work its expense ends and when a horse quits work its expense begins. A hay famine has no terrors for the power farmer.

The Mole Helpful.

Editor Green's Fruit Grower:—In recent numbers of your valuable publication there appeared several brief articles telling how to get rid of ground moles. Let me say a word in their favor—or at least in favor of one of them: For the past two years previous to this season, my garden truck, especially potatoes, was greatly damaged by the common white grub. The ground was literally full of them, as many as a dozen would occasionally be found in a single potato hill and the potatoes of course practically minus. This year a ground mole cleaned them all up, and was worth at least fifteen dollars

fit a tile of the same size endwise and used cement to make all cracks tight, being careful to pack earth firmly around the joint. I let this tile extend to within twelve inches of the surface, placing a flat rock on top and making a record of same.

To make this "shutoff" work I use strong twine and tie a bunch of rags just large enough to enter the tile, driving four or five stakes around the hole to tie the strings to.

My tile system is connected by sub-mains, so I only put "shutoffs" in them. The laterals are 500 feet apart and after pumping into a section of about three acres four days the moisture came to the surface over the tile, and surely if it does that it will soak sideways, filling the subsoil. My tile is from 2 to 3½ feet in depth. I find that the deepest bring the moisture to the surface first.

During the drought I not only kept my strawberry plants from dying, but they actually made quite a growth. There was also a patch of corn in the irrigated section which did not wilt like other corn. I think subirrigation a success, and there is very little loss by evaporation. Most soils in the central states would not be benefited by surface irrigation, as the hot sun would bake the soil hard as a brick, and do more harm than good.—J. J. Feldman, Mo.

A young lady reported on a country paper was sent out to interview leading citizens as to their politics. "May I see the gentleman of the house?" she asked of a large woman who opened the door at one residence.

"No, you can't," answered the woman decisively.

"But I want to know what party he belongs to," pleaded the girl.

"Well, take a good look at me," she said sternly. "I'm the party he belongs to."—Judge.



The "CYCLE"

Hatches in Nature's Way

Because it follows natural principles. These points found in the Cycle will appeal to you. They are vital to success.

FIRST: The heated air is applied on top of the eggs only, as under the hen. SECOND: No direct air passes through the hatch to carry off the moisture in the egg. THIRD: Being circular with the lamp in the center, the radiation is equal throughout the machine. FOURTH: The heat is brought close to the eggs so there is no waste of heated air space. FIFTH: The eggs are turned and cooled similar to Nature's way. STUDY the hen, and investigate the CYCLE.

Our machines were used exclusively in the original Philo System plant where over \$1500 from 60 hens in ten months has been cleared from the sale of eggs, baby chicks, and fowls, raised on a city lot forty feet square.

Cycle Hatchers - \$6
Holds 50 eggs. Constructed entirely of metal. Self regulating. Requires no moisture. Will not warp, shrink or crack. Will last a life time. Hatches hens, ducks, geese and turkey eggs equally well.

Brooder-Hatchers \$8
Holds fifty eggs. A compact, safe and practical incubator and brooder combined. One lamp serves both purposes. Saves about one-half the cost of hatching and brooding chicks.

Write for a copy of our new edition of "Poultry Profits." Sent free on application. It will give you new ideas and show you new possibilities in poultry keeping.

Cycle Hatcher Company
331 North Ave., Elmira, N. Y.



Fruit and Poultry Pay Well Together

The busy time for poultry is the easy time for fruit. Quinces, plums and cherries in poultry yards help the poultry and produce great crops. Plant grape vines around runs and poultry houses. They give shade in summer and bear paying crops in the fall. It pays.

GREEN'S FRUIT GROWER tells you how and where to plant, how to prune and spray, and how to make your fruit trees most productive. Mr. Green has piloted many orchardists.

One of our subscribers writes us that he got \$506.91 net from five acres of strawberries.

Another one got \$240.64 net from two acres of raspberries.

Another one got \$490.66 net from two and a half acres of cherries.

This is better than growing wheat at \$1.00 per bushel, thirty bushels to the acre.

Charles A. Green, the man who, over thirty years ago, discovered that fruit growing was the best and most profitable way to occupy land, has written an intensely interesting and highly instructive book, "How I Made the Old Farm Pay." It is worth many dollars to any fruit grower or farmer. It is a story of Mr. Green's actual work and its results. YOU may follow its methods and teachings and make your place much more profitable.

Our Special Offer

Send 50 cents now and get GREEN'S FRUIT GROWER for twelve months and Green's booklet, "Thirty Years with Fruits and Flowers."

Or send us \$1.00 to-day and we will send you GREEN'S FRUIT GROWER every month for thirty-six months and Mr. Green's famous book, "How I Made the Farm Pay."

Or send 10 cents to-day for three months trial subscription and get Mr. Green's book, "How I Made the Old Farm Pay" free.

Send your order to-day, as the subscription price must be advanced.

SEND NOW AND BE GLAD LATER.

Green's Fruit Grower Co.

Dept. A.

Rochester, N. Y.

RHODES DOUBLE CUT PRUNING SHEAR

Pat'd June 2, 1903.

RHODES MFG. CO.,
532 S. DIVISION AVE., GRAND RAPIDS, MICH.

THE only pruner made that cuts from both sides of the limb and does not bruise the bark. Made in all styles and sizes. We pay Express charges on all orders. Write for circular and prices.

MANN'S LATEST MODEL BONE CUTTER

cuts easily and rapidly all large and small bones with adhering meat and gristle. Automatically adapts to your strength. Never clogs. Sent on 10 Days' Free Trial. No money down. Send for our free book today.

F. W. MANN CO.,
Box 39, MILFORD, MASS.

Make Your Hens Lay

You can double your egg yield by feeding fresh-cut, raw bone. It contains over four times as much egg-making material as grain and takes the place of bugs and worms in fowls' diet. That's why it gives more eggs, greater fertility, stronger chicks, larger fowls.

Free Book Tells How

MYERS SPRAY PUMPS

NOZZLES, FITTINGS, ETC.

Are built in many styles for every spraying need from the small Bucket Pump to the larger Barrel Outfits and Power Rigs—for spraying vegetables, shrubbery, orchards and vineyards.



Illustration shows a Myers Barrel Outfit complete with Pump, Hose, Nozzle and Barrel mounted on Steel Cart ready to spray—one of the many styles illustrated in our Spray Catalog SP13, which we will mail you on request with name of our nearest dealer. Write today.

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Low Prices Start at 13c Per Rod
Direct from factory, we pay freight. We use hard, High Carbon, Best Open Heart Wire, Double Galvanized. Over 150 styles—hog, sheep, poultry, horse, cattle, rabbit fence—farm gates, self-raising gates, lawn fence and gates. Mail postal today for free, big, money-saving catalog and free sample.
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WE PAY FREIGHT

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We make you the same price we would make the Dealer or Jobber. That is why we can save you money. Look at these very low prices.
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23¢ c. a rod for 49-in. farm fence
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Please mention Green's Fruit Grower.

\$300 per year easy with hens
HOW to make Hens lay when Eggs are high. We do it. You can do it. Simple method explained in our illustrated Poultry Book which also has Record and Expense Acct. showing gains or loss monthly 16c. Every Poultry Keeper needs this 16c. Address, G. S. VIBBERT, Clintonville, Conn.

Plans For Poultry House

Sometimes we farmers and fruit growers have an opportunity to get something good without the investment of any of our hard-earned dollars. Just now there is an opportunity to get a little book which treats of farm buildings and which contains plans for eight of these buildings, together with full specifications and detailed drawings so that any carpenter may build them. Amongst other buildings treated in this booklet is the hen house. The plan for this is simple and such that any amateur carpenter may put it up without any trouble. This book is handsomely illustrated and is of real value to every farmer. It is called the "All Farm Needs Book." A copy may be had free by simply writing to the Southern Cypress Mfrs. Assn., Room 114, Hibernia Bank Bldg., New Orleans, La.

Millions of Chickens and Pigeons

Thousands of Pet Animals and Birds

die each year because their owners do not notice first symptoms. I can show anyone in five minutes how to tell at a glance, when feeding or tending the flock, whether there is anything wrong and just what to do to remedy it right at the start when cures are easy.

The water eye, dirty beak, discolored comb, condition of the droppings, tell the story at a glance before the chicken really acts sick. A penny spent then is worth a dollar spent later. You can easily tell whether a chicken is being run down by lice or mites; whether roup, canker or bronchitis is starting and just what to do to effect a cure.

I have made a special study for twenty-five years of poultry and pet stock troubles—how to diagnose quickly and how to apply the easiest and surest remedy. I want to show each reader of this how to raise more and better chickens, keeping them healthy, active and productive. Every additional thousand chickens in the country helps the sale of Lee's Lice Killer, Lee's Insect Powder, Lee's Egg Maker and Germosone, which are sold at more than 10,000 towns in the United States and Canada. I will send free our Poultry Book and our pamphlets, "Pointers for the Amateur" and "Diagnosis of Diseases of Poultry and Pet Stock" and also answer any special inquiries free of charge.

Lee's Lice Killer is the wonderful insecticide that you have only to paint or spray on the perches or roosting places of chickens, pigeons or any birds to get rid of insect pests. No dusting, dipping, grooming or handling of individual birds.
Germosone is Antiseptic, Germicide, Fungicide; the most widely popular remedy for Poultry, Pigeons, Dogs, Pet Animals and Singing Birds. Its use is indicated in a large majority of affections of the eyes, nostrils, mouth, throat, skin, crop, and bowels.
Get posted now before troubles set in. Address your letter to

GEO. H. LEE CO., DEPT. 2—OMAHA, NEBRASKA

When you write advertisers Please mention Green's Fruit Grower.

Thanksgiving.

Written for Green's Fruit Grower by Albert E. Vassar.

Give me the good Thanksgiving times,
We had in days of yore,
With jolly jokes and merry rhymes
And table running o'er.

With turkey so abundant that
It made the heart go pit-a-pat,
And mother didn't care a rap
If we did pass for more.

Oh the puddings, cakes, pumpkin pies,
Oh my, it makes me gald,
To think of things that meet the eyes
And all the fun we had.

Be jolly on Thanksgiving day,
And cast your worries all away,
The cheerful things alone will pay,
And never make us sad.

November Poultry Pointers.

Written for Green's Fruit Grower
By Earle William Gage.

Locate as many egg customers in the nearest city as you are able. Keep the profits that usually go to the grocer and commercial agent for yourself. Cash for eggs is the best way to success.

Get the turkeys ready for Thanksgiving market. Start the final meal feed now. Place the birds in a room with one or two windows. Place burlap over these, and remove only for the birds to eat. Then close down. By using this method they cannot "work" off the feed. It all goes into money.

Have the poor class hens and the roosters you do not need ready for Thanksgiving tables. The prices are right now.

Have the sand and dry-dirt boxes in good shape. Hens need the dust. The sand is best for grinding, and should be placed in hoppers that no dirt may become mixed with it.

The vegetables for winter feeding should be safely stored in the root-cellars. The spring supply can be buried in the field with nine inches to a foot of straw over the top. Bright green silage is a great green food. Use it liberally. It will increase the egg production.

See that all the layers are supplied with nests. In the best equipped houses 75 nests are allowed for 100 hens. Keep the nests clean and renew nesting material often. Clean nests means clean eggs. Clean, fresh eggs spells clean profits. Never take dirty eggs to market. It tells your character too near to the bull's eye. Eggs will be high from now till January 15th. Keep them coming and then going. Make hay while the sun shines.

If you have a supply of pumpkins, cook one or two a day, and feed. It will make that desired yellow yolk. Better mix this feed with the mash.

Have hoppers for the mash feed, so arranged that the hens can't get their feet in. They should never be allowed to eat filth. Feed them feed.

If you haven't feed enough for winter, better buy it now. The price will go up in a few weeks. This interest will mean more clear profits for the winter.

Don't try to winter more birds than you have house-room for, or time to care for. Over-loaded houses are sure to become damp, while hens will not lay when over-crowded. And don't let the roosters remain with the layers. They kill egg-production. They are feed consumers and non-producers. Don't keep more than you will need for spring use.

Don't let the hens sleep underneath the roosts. If a stray rat should get in, there will be one less hen. And the air is much better up higher. If these floor-sleepers contract colds, the whole flock will be off for the winter.

Look out for the drafts. Fix all suspicious open places. Roop in the hen house means no money in the pocket.

Keep the water pure and clean. Place new supply in it three times a day to be sure. Don't expect the hens to drink ice. They may be able to, but they can't do this and lay too.

An extra feeding of whole corn when the night promises to be severe is a good policy. Buckwheat is a good addition to the cold weather ration.

If the pullets don't lay it is probably your own fault. See that they receive a good ration of moistened (not mushy) mash, good grain, and succulent greens. And don't forget that pullets and lice don't make eggs.

Take the brooding coops out of the snow, and store them in a stray corner of the barn. Better get all the lumber that you will need to build more inside, so that you can be doing this work when the snow is deep.

Don't forget the oyster shells. Sand and grit don't make eggs with proper shells. And the lime of the oyster shells is what the hens need.

Cutting Wings.

Some poultrymen do not believe in cutting a fowl's wings by clipping off the quills, as it makes them look unsightly. Instead they spread out the wing and cut the feather portion from the quill. This leaves bare quills, and when the wing is closed, it rarely shows that the wing has been tampered with. Only the one wing is thus cut.



Two lads, subscribers to Green's Fruit Grower. Capt. J. H. Johnson, aged 73 at the top; D. D. Wait, aged 80 in his flower garden lower right. Capt. Johnson says: I have been a reader of your valuable paper for, I suppose over twenty years, and am now paid up for some years in advance. It is the best paper that we have. I was in the army over four years. I am badly crippled with paralysis agitans in my limbs, have to use crutches. I cannot write but learned to write on a typewriter a little over a year ago.

An Anglemorm Farm.

Mr. W. Orton Moon has one of the few anglemorm farms in the United States. Moon's farm is one of the curiosities of Michigan. It consists of twenty-five pails. Each receptacle or "field" contains fifty to five hundred worms. Each worm is a marvel of grace and plump beauty. He feeds them on a diet of coffee grounds and cornmeal and they grow as large as snakes. He makes \$1,000 a year on his unique farm.

Care of Spraying Machinery.

It is needless to say that the care of spraying machinery should never be neglected. The man who pays \$400 or \$500 for an outfit cannot well afford to let it stand around where the metal parts will rust, and the tank dry out and deteriorate, if it is a wooden one. Much of the trouble with a gasoline power sprayer could be prevented if care were exercised in the fall to clean the outfit thoroughly, drain the engine, care for the nozzles, leads of hose, etc. Then in the spring another careful overhauling ought to put it in such condition that there should be little trouble during the spraying season. Not only should all this be done, but always after a lime and sulphur or other caustic spray is used the machine should be thoroughly cleaned by running clear water through it, including the hose rod and nozzles. The spray will not only injure different parts of the machine, but will also harden and small pieces will clog the nozzles when again used. The power sprayer is a high priced piece of machinery, but it is an effective piece when properly handled. Its usefulness can be greatly decreased by improper care. —Denver Field and Farm.

Keep the Fruit Picked Up.

All fallen fruit, whether of any value or not, should be picked up from the ground. Decayed fruit is a breeding ground for disease and insects. Hogs are excellent orchard scavengers.

A Crazy Clock.

One of the inmates of a New York insane asylum, an Irishman, was sent to an adjoining ward to find out the correct time. He returned in a moment and announced:

"Twenty minutes t' twelve."

"Pat, are you sure that clock is right?"

he was asked.

"Roight, is it?" he replied. "D'ye think it wud be in this place if it wuz roight?"—Judge.

Fall Plowing.

By R. P. Kester, Penna., Farm Advisor on Soils and Crops.

The question of plowing in the fall for spring crops is debated pro and con. There is a difference in the conditions; cover-crops are grown on land that has been cultivated during the summer. As a result of cultivation and the exposure of the soil to the sun and air, much plant food is made soluble and available in the late summer that is not used by the ripening crops, and hence is readily leached from the soil by winter and spring rains. This is especially true of nitrogen. Hence a cover crop is valuable in that it appropriates this available plant food and holds it near the surface, says Pennsylvania Farmer.

Land that is steep, or so gravelly or sandy as to be easily moved bodily by washing should not be plowed in the fall, even if it be sod. There are not the same reasons for plowing such land in the fall since it can be plowed readily early in spring.

There are several advantages in plowing land in the fall when the soil is adapted to it. If it is a clay soil, the alternate freezing and thawing fines it better and cheaper than can be had by mechanical means. If harrowing is commenced as soon as it is dry enough in spring, the water which has fallen during the winter and early spring can be kept there for the growing crop by maintaining the dust mulch. Fall-plowed land becomes firmly settled before seeding time, and when well-harrowed on top is an ideal seed bed.

Deep plowing may be practiced in the fall since the exposure of the subsoil thus brought up to the action of the air and freezing weather liberates plant food and reduces the soil to a fine mechanical condition. Little injury is done by plowing land when quite wet in the fall, since freezing prevents its baking and becoming cloddy, while if plowed wet in the spring the soil is injured and succeeding crops suffer.

The summarize, sod land that is clayey and not too steep is benefitted by fall plowing. Little injury will result from plowing corn stubbles in which there has been no cover crop sown unless the land is subject to surface washing. Fall plowing is best done in the months of November and December, a season in which other farm work is not crowding, and when plant food is not being rapidly made ready for plants because of the low temperature of the soil.

A splendid portrait of a woman signed by Manet has been discovered in use as a patch for the roof of a henhouse on the garden of the home of Ziem, the famous painter who died recently. It is inferred that the picture must have been placed on the shed before Manet became famous; if so it must have served the ignoble purpose of keeping rain from chickens for fifty years.

Good For the Orchard.

There are many farmers and orchardists who think that dynamite is unnecessary for tree planting unless the soil is underlaid with hard pan in which case they consider dynamite a valuable aid in breaking through the hard soil, says the Farmers' Review. My experience, however, has been that when trees have been planted in blasted holes they thrive considerably better than when planted in hand-dug holes, even when there is no hard pan to be encountered. My dwarf apple orchard was set some six years ago. The holes for these trees were all dynamited, and there was no hard pan soil to overcome. I am sure a thriffter growth of trees at their age cannot be found anywhere. The fine start the trees got in the loose, rich earth has not been retarded and the trees look very promising, and are stronger and healthier than they would have been if planted under the old conditions. Possibly if the holes had been hand-dug, the trees might have thrived as well, but I doubt it because in digging the hole by hand there is a tendency to leave packed earth around the root, thus retarding their growth.

To destroy slugs and earthworms, water the ground and base of plants with a solution of ammonia, one ounce to the gallon. The pests come to the surface and perish. The ammonia promotes the growth of the plants.

The Thing For Him.

A beginner at golf was on one occasion taking an unconscionable time to get round a seaside course near Edinburgh. Several holes had been "played" in a manner which produced a look of disgust in the face of the caddy. Getting badly bunkered, the man tried several clubs, one after the other, without success. Turning to his caddy, he inquired: "What should I take now, boy?" To this the caddy promptly responded: "Ye should ta' the 4:25 back to Edinburgh."

In sides well a fruit, very helps orchard when surface of soil trees. manur orchard below. Ano a favor is the covere extent apple arrang up in manur in furr between much grass. as a p can sta the hill in any not of movem ground guileys. Ther can be which. The air the hill just as make a

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Yet an for orch is more the leve is that boulder material and in o a great v very rich apple tr wood, Il

Note: fruits on southern location

An ex John We a brother saying t should d passing a which a "Do y the cow l "No." "I wil cause sh that is troubles

Orchards on Hill-sides.

In my experience with orchards on hill-sides I have found that hill-sides are places well adapted to the production of fine fruit. The land drains itself unless of a very heavy clay formation, and this alone helps greatly to insure success in the orchard. Fertilizers applied to such land when washed at all are washed along the surface soil rather than into lower strata of soils below the reach of the roots of the trees. This makes it possible to work the manure into the higher portions of the orchard land and get the benefit of it below.

Another reason that makes the hillside a favorable location for this kind of work is the fact that the surface must be kept covered with grass to a large enough extent to keep it from washing, and the apple orchard fits it admirably with this arrangement. The soil can be worked up in a circle around each tree and the manure applied there, or it can be applied in furrows running across the hillside and between the rows of trees. In this way much of the soil can be kept covered with grass. A little bare earth will not serve as a place from which the little torrents can start in their destructive course down the hillside. The water that accumulates in any one place during a rain storm is not of enough volume to start a disastrous movement unless it has below it soft ground that can be easily worked into gulleys.

There is another reason why a hillside can be successfully utilized for an orchard, which is that the air drainage is better. The air in the valleys is warmer than on the hilltops because the cold air settles, just as cold water settles. It is hard to make a man believe that the air on a hill-

The Woods that Bring the Sunset Near.

The wind from out the west is blowing;
The homeward-wandering cows are lowing;
Dark grow the pine woods, dark and drear—
The woods that bring the sunset near.

When o'er wide seas the sun declines,
Far off its fading glory shines—
Far off, sublime, and full of fear—
The pine-woods bring the sunset near.

This house that looks to east, to west,
This, dear one, is our home, our rest;
Yonder the stormy sea, and here
The woods that bring the sunset near.
—Richard Watson Gilder.

Pennsylvania Letter.

'Green's Fruit Grower Co.—Our land is adapted to rye, oats, buckwheat, millet, other grains and vegetables and is well adapted to most all kinds of fruit that is usually grown in this latitude; such as apples, pears, plums, cherries, quinces and currants and is the home of the blackberry, raspberry, gooseberry and strawberry.

Some of my gooseberries that were set two years ago last summer bore over six quarts to the plant last season. This same berry retails in Kane at fifteen cents per quart and my strawberries were admired by all that saw them both for their size and for their fine flavor and keeping quality. Some of them I believe were as large as butternuts. They are of the Corsican variety.

No effort is being made here to supply the people of the town with these fruits, outside of a few apples that are brought in the fall. Ten years ago an old gentleman at East Kane, which is a suburb of Kane, started in to raise strawberries for the Kane market. The old gentleman died and since there has been no berry grower for the Kane market.

spring 1913 unhulled seed will grow if sowed very early. Frost does not kill small plants in spring.

Encouraging Testimonials.

The best paper ever published.

H. C. Oldfield,
Port Sanilac, Michigan.

East Monroe, Ohio, Aug. 21, 1913.

Green's Fruit Grower:
This is to inform you that the telescope arrived today O. K., and I must say it is fine.—Margaret Tudor.

Seaford, Del., Aug. 15, 1913.

Green's Fruit Grower:
I am putting out a large orchard and there are so many good things in Green's Fruit Grower that I must have it with me.—N. E. Bosworth.

Spanish Fork, Utah, Sept. 1, 1913.

Green's Fruit Grower:
I think your magazine is splendid. I have received much valuable information therefrom.—Wm. B. Rickes.

Evart, Mich., Aug. 14, 1913.

Green's Fruit Grower:
We think Green's Fruit Grower a fine magazine for the home. All the contents seem to be so wholesome and good morally. I bank on the advice given in the paper.—H. A. Grigsby.

Helmer, Md., Sept. 1, 1913.

Green's Fruit Grower:
I have only been a subscriber to the Fruit Grower two years, but consider it worth its weight in gold to any fruit grower.—S. O. Butler.

Fairfield, Ill., Aug., 1913.

Mr. C. A. Green:
Every month we enjoy Green's Fruit Grower better. It is certainly a fine magazine.—C. A. Phelps.

Paterson, N. J., Aug., 1913.

Green's Fruit Grower:
I would like to say that I think Green's Fruit Grower a most excellent publication and shall look forward with much interest and pleasure to receiving it regularly.—Arthur T. Bennett.

Bowdoinham, Maine, Sept., 1913.

I like Green's Fruit Grower better than all other publications. I would subscribe for it even if I were not living in the country. I thought I was paid ahead of date. I would not have you stop Green's Fruit Grower even though it cost \$1.00 a year.—W. H. Gould.

The Caddy's Rebuke.

Mrs. R. H. Barlow, the golf champion, was telling golf stories at a luncheon in Philadelphia.

"I once attended a feast," she said, "that a golf club gave in honor of its caddies. The caddies enjoyed the feast, and most of them displayed excellent table manners, but there was one lad, Charlie, who fed himself exclusively with his knife. "Fish, peas, chicken, mashed potatoes, sauce—everything was conveyed to Charlie's young mouth on a knife blade. But when the ice cream came on, and the lad actually began to shovel in ice cream upon a knife, a caddy at the other end of the table shouted in amazement: "Holy smoke! Look at Charlie. Usin' his iron all the way round!"

It's well to pay as you go—and also to have enough to pay your way back.

Fruit Pays.

I grafted a Paradise apple tree many years ago. It has been bearing fine fruit for many years, had 12 bushels of apples on one year. It did not cost me one cent.—L. B. R., Maryland.

My Experience With Sweet Clover.

Written for Green's Fruit Grower by F. F. George, Idaho.

At this writing May 27, North Central Idaho, foot of Bitter Root Mountains, my sweet clover is a mat eighteen inches high, with a backward spring. I sowed 20 pounds per acre white sweet clover, spring 1910; first cut in August following 18 inches high, mowed and fed to cattle. Summer 1911 grew 8 feet tall, seeded. I cut with sickle, threshed 150 pounds seed with a club. Enough shattered off that after burning over stubble spring of 1912 another fine crop was mowed and fed green to horses and cattle. Now I have the above mentioned crop, that I will cut for hay before a blossom appears, obliged to cut it five inches high then it sends up a new crop that will blossom and bear (50 colonies) will gather a fine crop of honey, later I get another crop of seed, enough shatter off for next crop, and so on ad infinitum. It is a biennial. No blossoms first year. After blossoming or bearing seed it dies. Has no crown, sprouts from five inch stubble left. Unhulled seed must be sown very early in spring, lightly dragged in. Cattle never bloat eating it, for pasture there must be nothing else in the field. For hay, rake when nicely wilted, after curing about a day in windrow, shock. Blind diggers, gophers and ground squirrels abandon the tract where it grows. My experience



A Hillside Orchard.

top is warmer than in a protected valley, but it is true.

There is another good reason which is that in the valleys the warm days in winter and early spring cause the starting of the buds and the sap in the tender trees; the cold nights following such thaws cause the rupturing of the tender cells in which the sap has accumulated and thus cause the death of the trees. For a like reason the northern slope is a desirable place for orchards, especially for the peach. The trees on such a slope receive little of the heat of the sun and get most of the cold winds. They thus remain dormant until the sun is high enough in the sky with the approach of warm weather to insure freedom from heavy freezes. When peach orchards are placed on southern slopes the buds are often damaged by the warm days in winter and early spring.

Yet another reason for using hill-sides for orchard purposes is that boulder clay is more often found on hill-sides than on the levels. Probably the reason for this is that in the level and low places the boulder clay has been covered by other material brought in by the action of water and in other ways. On the hills there is a great deal of this kind of clay, which is very rich in the mineral matter that the apple trees so much need.—J. S. Underwood, Illinois.

Note.—I find successful orchards of all fruits on different slopes, eastern, western, southern and northern, if the soil and location is favorable.—C. A. Green.

Look Over.

An exchange recalls an old story of John Wesley, who was once walking with a brother who related to him his troubles, saying that he did not know what he should do. They were at that moment passing a stone fence to a meadow, over which a cow was looking. "Do you know," asked Wesley, "why the cow looks over the wall?" "No," replied the one in trouble. "I will tell you," said Wesley. "Because she cannot look through it; and that is what you must do with your troubles—look over them."

Fruits and Vegetables Have a Medicinal Value.

If we take for granted all that has been said about apples in legend or history it is evident that they have often been a source of trouble and discord, but, regarded from a medicinal point of view, they are among the first of all fruits in importance. They have a magic effect upon the human system, as they contain quantities of water and a large proportion of potash. In the form of cider they are a sovereign remedy for gout.

Due to the enormous amount of salicylate acid that strawberries contain, their reputation is established as a marvelous cure for rheumatism, although taking in large amounts by persons with delicate skins often causes eruptions of different kinds.

Grapes cure both obesity and thinness. The difference lies in the manner of treatment. They possess an enormous quantity of potash and an abundance of water, which is good for the kidneys. They contain a large proportion of sugar, which stimulates the liver, while the salts of tartar which they contain is a well known aperient. For stout people all kinds of animal food and foods rich in albumen must be suppressed, and the diet must consist of vegetables and grapes, beginning with a bunch or two a day and gradually increasing to three or four pounds. Thin people should take from a pound to a pound and a half a day, with plenty of animal food and fatty substances.

Plums, even when cooked, have excellent laxative qualities, and lemons are good in certain maladies of the stomach. Almost every kind of fruit has some curative property.

We get back our mete as we measure, We cannot do wrong and feel right, Nor can we give pain and get pleasure For justice avenges each slight.

—Alice Cary.

Unless rotten apples are promptly removed from the orchard, fruit pests will have an ideal place in which to hibernate during the winter months.

Mrs. Robinson.—And were you up the Rhine?

Mrs. De Jones.—I should think so, right to the very top. What a splendid view there is from the summit.

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HARRISON'S NURSERIES, Box 397, Berlin, Maryland

When All Outdoors Goes to Sleep.

Written for Green's Fruit Grower by F. H. Sweet.

The month when we give thanksgiving for harvests is a fickle one, with days of cold drizzle that wash the glorious October colors out of the landscape. The raw winds harvest the leaf crop of belated trees, and pack a thick leaf carpet over roots that might, without protection, suffer from cold. Then again November skies relent and smile a benediction in rare Indian summer days as beautiful as any the year has offered.

Let us spend as much time as possible this month outdoors, seeing things—anything, everything—getting the eyes adjusted to the winter aspects of Nature, in order that a winter landscape may no longer seem inanimate, simply because the living things in it are asleep. November is the last call to get ready for winter. How do all the plants and animals respond to it? Let us go out and see.

If you have noticed the changing seasons in various latitudes you must have been greatly impressed with the difference in the way Nature gets ready for winter. One of the charms of our northern climate is the thoroughgoing way in which plants and animals prepare to meet the winter. By looking out for them in midsummer, we can find preparations already under way. Notable among these are the formation of winter buds on all deciduous trees. Each leaf is a nurse to a bud at its base. And this leaf does not fall until its bud is full grown and wrapped safe against alternate freezing and thawing, the thing that kills buds.

"Where do the myriad forms of animal life go?" The motionless silence of November wood raises this question. The whole landscape echoes it, as the gray days shorten.

The long lines of wild geese, diverging in pairs from one leader, sail by on their way to Southern watercourses that promise winter food. The constant succession of migrating song birds have answered the question for themselves during the earlier weeks of autumn. A few stay all winter. Woodpeckers store acorns in holes they find and drill in the trees, often in merely the rough bark. If you ask about the furry four-footed animals which hoarded nuts and other wild fruit earlier in the autumn, the answer is: They do not go. They stay asleep, in burrows under the roots of trees or in hollow trunks, in nests lined with warm bedding materials. Some are now in that strange trance-like state in which the temperature goes almost to zero and the functions of life are practically at a standstill. Some sleep lightly, rousing to eat with some regularity from their stores; some to supplement these rations by foraging, even in the dead of winter.

As to insects, most individuals of the myriads seen in autumn, perish. But each species survives in individuals that Nature destines to preserve its kind. In one stage or another, these survivors pass the winter safely, and comfortably. Anyone can discover this for himself. The difficulty of finding these smaller creatures is largely a defect of vision. If you know where to look, and then remember that it is Nature's game to

The great paper palaces are empty now, and may be collected and studied.

"Where shall a timid, city-bound explorer look for insects asleep near home?" In the maple tree outside your window. At least, that is a fair place to begin. No better example of protective coloration, or mimicry, exists than in the large tapering cocoon of the giant silkworm fastened to a twig, and deceives ordinary eyes by its resemblance to a dead and crumpled leaf. In cities, shade trees of many kinds are increasingly attached in summer by the giant caterpillars, which in autumn roll themselves in dead leaves, before spinning their cocoons of russet silk threads. The exclusive diet of leaves may account for the fact that the cocoon is a perfect match in color for any dead leaf that may cling to it. Hungry birds are stupid. These fluttering and clinging dead leaves conceal so many fat and juicy morsels that need only to be seen to be an easy prey to beak and claw. A silkworm pupa, though more strongly wrapped than other insects against attack, is still attainable, and one is big enough for a square meal, as bird meals go in winter.

Once started on the "dead leaf game," the amateur naturalist must go to the nearest place where the spicebush grows, and the sassafras, which often forms a thicket in old fence-rows. Dead leaves on these two well-known native species are seen to hang down and to be rolled into pencil-shaped tubes. It is a difficult matter to detach the leaf stem from the twig. A shining silk covers this tubular leaf cradle of another insect, the Promethea moth, and the caterpillar that wrapped the leaf blade closely around itself, first insured the leaf against its natural fall by binding its stem securely to the parent twig. Eyes once focused to see these marvelous little cocoons discover them in great numbers.

Under various trees planted commonly around homes for shade and ornament, the cocoon of the great pale-green Luna moth is to be found. Wrapped first in a leaf, then wound in skeins of russet silk, then left among the dead leaves, this sleeping insect is as safe as its distant relatives that hang unseen on the naked trees. A patient half hour spent in scanning lapfuls of leaves is the price you pay for a Luna moth. But what a find it is!

Four great moths I have named that sleep in dead-leaf cocoons in our door-yards and on street trees and nearby woods. What does it mean to bring in a few of each and keep them in a cool room, or even to set the twigs in vases in the living room where all can watch them? The Lunas and the Teles, in a box of leaves, show how perfectly Nature hides them through this defenseless stage of their lives.

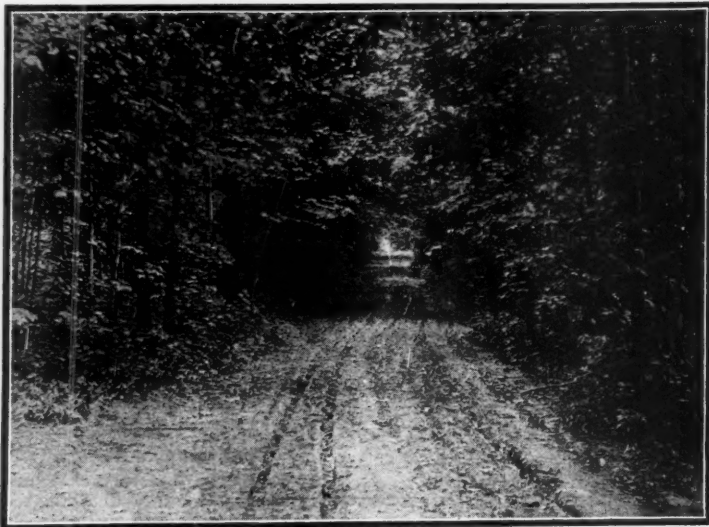
Before their natural time, these indoor specimens will wake. The moths that come from these cocoons are more perfect than any that are captured with a net. Watch the unfolding of their velvet wings; not a scale is displaced, not a shade or tint of color has faded. The different coloring of male and female in each species is easy to see. The laying of eggs takes place at once. Then the moths are due to die. Chloroform applied to their sides with a camel's hair brush gives you perfect specimens for the insect cabinet. The best insect collectors will tell you they "raise" their own moths.

Another phase of the dead leaf game is common under oak trees. Smooth, round balls of spongy substance grow to the size of a golf ball right out of the top or on the edge of an oak leaf. In the center is a core which explains the strange growth. If the insect is still there, asleep, it will wake in spring and make its way out. Investigate the cones and fleshy "warts" on the twigs of willows.

Look for the leaf miner, asleep in the large end of the winding burrow between the two walls of an oak leaf. In such a place the pupa needs but a scant covering of silk; the leaf itself takes the place of a cocoon.

Look at the cracks in the bark of an apple tree, and the codling moths will be found asleep in their cocoons of loose silk. These are the miscreants that make apples "wormy" at the core. The full-grown larva bores its way out of this side of the apple (or pear) and goes into hiding for the winter.

The mass of hardened foam that conceals a layer of small eggs on the same tree belongs to the Tussock moth, a nuisance on the foliage of fruit and shade trees. The dark waxen band on twigs of apple trees and wild cherry trees conceals and protects the eggs of another pest, the tent caterpillar, which strips the leaves from whole branches, above the tent of silk webbing that shelters them by night. The most helpless period in the lives of many of our most serious insect pests, when we may most easily rid ourselves of them, is in winter when the cold has bared the trees and put the creatures to sleep. But unless our eyes are sharp, Nature outwits us. It takes practice to "see the thing you are looking at," in winter.



When Nature Goes to Sleep.

A leafless tree, clothed in bark to the scale-wrapped buds, is trim and ready for any weather. It has a thickened coat of bark, just as the birds and the animals wear thicker plumage and fur.

In Florida, the dishevelled appearance of trees in winter is a trial to the nerves of tidy people who are acquainted with the same trees up North. The milder climate "takes the ambition out of Northerners." Our trim red maple holds its frayed and faded leaves until the swelling buds push them out of their way in the early spring. The glorious white-flowered magnolia has its spring beauty marred by the same tardy leaf fall. Lush, continuous growth, with accompanying decay is the order everywhere, and it makes you homesick for the clean bare trees and underbrush in the land of the long, white winter.

Have you seen the ruddy buds of your maples et in definite order along the twigs? Compare those of the horse chestnut, as to size, appearance and arrangement. See the leaf scars under each. Look at the sycamore's bud and the scar that surrounds it. The dead leaves tell the reason for this ring scar. Sumacs have the same peculiarity. Find the hidden buds on the black locust, the fat fruit buds and lean leaf buds of the same twig on an apple tree and an elm.

People will continue to exclaim in January: "See how the buds are forming, already!" The remark will be seasonable and true six months earlier. Before the leaves change color in fall, the buds are full grown. They swell when spring sends sap up to them—not before. The fact is that winter buds, those wonderful little growing points that stud the bare twigs, and contain all that the tree can express of life and beauty during the coming year, are ordinarily overlooked until budding time approaches. Buds are twigs in miniature; each is set with all the leaves it is to bear. Flowers of all early blossoming trees and shrubs are contained in buds carried over winter. Recall the rush into leaf and bloom that transforms the trees in April. Can any thinking mortal imagine that they form their buds in winter?

trick and deceive curious and unfriendly eyes, the game becomes interesting, and you begin to see what is before your eyes, without assistance.

Insects of the higher type pass through four stages of development; the egg, the larva, the pupa, and the adult. The first and third are quite helpless periods, when the creature does not eat, and these naturally are the stages in which many pass the winter. The larval, or caterpillar stage is one of growth, activity, and rapid change in size. Plenty of food is needed for the hungry youngster. If you find a single larva asleep in winter, be sure that it has eaten its last meal, and awaits the tardy change into the pupa stage. Adult insects, if they survive the winter, do so by hibernating. The rare exceptions are well represented by the honey bees.

Where are the rasping katydids, the clacking grasshoppers, the whirring beetles? Some sleep in haystacks and hide in brush piles, or snuggle in the company of fat grubs of beetles under the bark of rotting stumps. Katydids survive in the form of eggs, laid in the stems of woody plants. Meadow grasshoppers lay their eggs in masses under sod. Spiders' eggs hang in silk pouches in twigs and in weed tops. Jays and crows consider them dainty morsels, in midwinter. Butterflies survive in egg clusters laid in dead leaves, on exposed walls and twigs, where they endure zero weather without harm. Chrysalids hang on old fences, on clapboards of buildings, in hollow trees and other exposed situations. They mimic in color and texture the surfaces to which they are attached, and so avoid detection. In this form many butterflies pass the winter.

The young of wasps develop in cells of mud, provisioned with spiders and other insect food by their long-sighted, thread-waisted mothers. Little mining bees sleep in cells in the hollow stems of sumac; others in chambers underground. Many adult insects winter in our attics and in outbuildings. Hornets desert their paper nests, and the queens are the sole survivors. They hide in attics or hay mows.

A lot of trees, the p

side yard the brand it was we were been a l grandfat the land a very c and the last I he I think i an orch seemed a he did t select the little ab cheated o bring them out mare for every par and Louise B dwarf, Se tive, Os Virgalieu years but finest pre barrels ha Such Bar and Colon Bartlett p my father with bro of the Du paper and specimens delphia f barrel sol How prou are beari bosom pl as the bea home on est flower to and so my picture s Mrs. Fred

Green's your quest they will n I have ha

The Pears of my Childhood.

Editor of Green's Fruit Grower:—The first fruit I remember in my early childhood was pears. We moved from the farm where I was born to the homestead a mile away, my grandfather having died the house proper came to my father. He did not sell the "other place" for several years after and every fall we went to pick the pears. There were two large trees. The pears were large, bell-shaped and of a greenish brown color, I do not remember that they were very good to eat, but the preserves they made we thought very delicious. That was "company sauce" and a great treat. There were apples and blue plums on this "other place," set out when the land was first cleared. The large orchard set out by my grandfather in 1824 is still bearing good crops of apples.

In 1854 my parents with sister and I went on a visit to Jefferson Co., New York. It was quite a trip in those days from Wyoming County. We changed cars at Rome and while waiting we walked about the streets. At a grocery store I saw at the door a large basket of pears. I took one not being accustomed to seeing fruit other than at home. My father saw me eating the pear and explained to me how wrong it was. He settled with the grocer for it and bought a few. In later years I have often thought how little of the world I knew as a child, my little world was "home." We visited my mother's grandparents on a farm between Utica and Clinton and what impressed me most was a very large pear tree in the

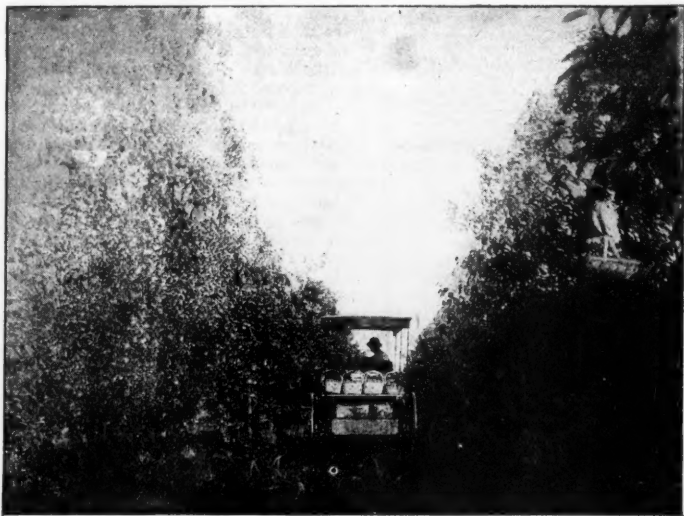
the last three years, nearly an average of five days a week only in mid summer, where I had no use for one. I have been using a fifteen-horse power engine for a saw mill and have started my engine at seven o'clock in the morning and not been near it until ten o'clock when I put in gasoline and oil, but the engine was not stopped until twelve o'clock. I have no fear of trouble with it. For an example of knowing how to run one of them, I have a brother who is ten years old who can do as well with it as I can, he knows nothing about it so far as trouble is concerned. I also have a two-horse engine which is of the Detroit make which is two cycle; I use this for pumping water, sawing wood, running a lathe, drill press and grindstone, etc., etc., with which I had trouble but once and then my brother was running it when I was away and did not use oil. The engine got so dry and hot that it cracked the cylinder head. Aside from that I have had extra good luck.—R. W. H. S., Conn.

Fruits as Medicine.

It is rather strange how few people know the medicinal value of our common fruits and vegetables. What a pity more fruits and fruit juices are not used instead of the drugs and patent medicines!

We find in the humble and much maligned prune one of the best, safest and most pleasant tasting cathartics there is to be had.

Nothing excepting possibly pineapple juice is more soothing to sore and inflamed throats than the juice of canned pears.



A lot of Seckel pears from Haven Bros. Orchard, New Wilmington, Pa. This orchard contains 300 trees, the principal varieties being Seckel, Kieffer, Dwarf and Duchess.

side yard. It not only was very tall but the branches spread out a great distance; it was loaded with fruit but not ripe. We were there in October so it must have been a late variety. I remember great-grandfather set the tree when he bought the land of the government. He was then a very old man, over eighty I believe, and the tree was still bearing fruit the last I heard, which was a few years ago. I think it was in 1858 my father set out an orchard of pears. It has always seemed a wonder to me that trusting as he did the agent of whom he bought to select the kinds for him as he knew very little about varieties, that he was not cheated in the trade. The man agreed to bring the trees from Rochester, set them out and then take a two-year-old mare for pay. He did as he agreed in every particular. Bartletts, both standard and dwarf, Duchess, Sheldons, Louise Bonnes, De Jersey, Standard and dwarf, Seckle, Winter Nellis, Bell Lucrative, Osborn's Summer, and a few of Virgalieu. The latter cracked badly some years but when they were ripe made the finest preserves I ever ate. Hundreds of barrels have been sold from that orchard. Such Bartletts I never ate. California and Colorado can take a back seat when Bartlett pears are mentioned. One year my father gave me charge of the orchard, with brother's help we selected the finest of the Duchess, wrapping each pear in paper and filling a barrel with very large specimens, which we shipped to Philadelphia for Thanksgiving trade. That barrel sold for \$15.00 and netted us \$12.00. How proud I was—many of those trees are bearing yet. "No spot on earth's bosom pleases me so well" to remember as the beautiful pear orchard at the "old home on the hill" where blossomed sweetest flowers, clear springs bubbled there and to my backward look it seems now a picture so rare, so sweet and beautiful.—Mrs. Frederick C. Johnson, Colorado.

Gasoline Engines.

Green's Fruit Grower:—In regards to your question of gasoline engines whether they will need attention while in motion. I have had experience with engines for



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THE STANDARD SPRAY PUMP

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Here is a pump that will spray your tallest fruit trees from the ground in half the time required by others. Will white-wash your chicken coop, spray cattle "dip" and with knapsack attachment, spray a field of potatoes as fast as a man can walk.

Simple, easy working. Nothing to get out of order. Made of brass throughout. Warranted 5 Years. Price \$4. (West of Denver \$5.) Express paid. Money back if not satisfied.

The only practical low priced sprayer for orchard, garden, field or vineyard. Send no money now but write today for Special Offer and Catalogue.

The Standard Stamping Co., 246 Main St., Marysville, O.

Get Your New Stove NOW

Take 3 to 8 Months to pay



If you want a new stove don't wait to save up the price. Order it at once from the Kalamazoo Catalog. We will give you easy payment terms and you'll never miss the money.

You can't find better quality. We give you the best to be had in stoves and ranges and back our guarantee with 30 days' free trial—a year's approval test—and \$100,000 Bank Bond.

Write for Factory Prices that save \$5, \$10, \$20 to \$40

It would do your heart good to see the new Kalamazoo catalog—400 of the newest styles—base burners, glass oven door ranges—fine wood and coal heaters, etc. More than any 20 dealers can show you. Send a postal for it quick. You can save money in fuel by discarding your old stove and installing a new Kalamazoo. Get the catalog and see. Will ship your stove, freight prepaid, the same day your order arrives.

Ask for Catalog No. 316

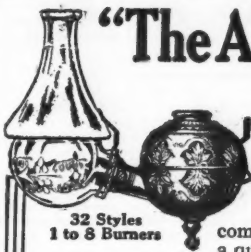
Kalamazoo Stove Co., Mfrs.

Kalamazoo, Mich.

We make a full line of Stoves, Ranges, Gas Stoves and Furnaces. We have three catalogs. Please ask for the one you want.



"The Angle Lamp Still Leads"



Read this letter from a scientific authority on eyesight—"I have used all forms of gas with mantles, inverted and upright, and also electricity, but for a rich mellow light with utmost illumination and no shadow, the Angle Lamp still leads." G. A. Sheetz, Graduate Optician, Pennsylvania.

Without odor, heat or smoke, one quart of common oil gives sixteen hours of unshadowed light of a quality approaching the true color value of sunlight.

While other oil lamps and individual systems require daily attention, about once a week is sufficient to care for Angle Lamps. No pipes to clog; no mantles to burn out; no valves to go wrong.

Note This Safety Emergency Feature

You can fill an Angle Lamp while burning or transfer part of the oil from a filled lamp to an empty one.

In writing for large catalog (illustrated) please mention No. 2.

The Angle Manufacturing Co.

244-246 West 23rd Street

New York City

Start NOW Green's Fruit Grower Readers Can Easily Make \$25 Per Week At Home

For over five years I have been advertising in Green's Fruit Grower. Scores of Green's Fruit Grower Folks are earning good money with Newcomb Looms. I want all Green's Fruit Grower readers to know how you can make your time most profitable—how you can engage in a delightful and fascinating occupation in your own home, that will not interfere with your other duties and assure you big profits for as much or as little time as you may be able to devote to it. I promise that you'll be interested. I say, and I know that every word I say is true, that you can make more money and make it more easily by weaving on a Newcomb Automatic Loom than at any other kind of home employment. My 20 years' experience with others and their letters prove what you can do.

THE NEWCOMB AUTOMATIC LOOM

is made especially for home workers. Unlike any other loom, it practically works itself. A simple movement of the hand is all it requires of the operator. No treading—no stooping—no shuttle throwing. Just the easy work that thousands of old and young are making big money at today—at home.

No experience is necessary. You will be delighted with the ease with which you can make the finest and most durable carpets, rugs, mats, draperies of every kind, and even beautiful portieres, chenille curtains and hammocks.

Beas in mind also, that no cash outlay for supplies is required. Old carpets, rags, cast-off clothing and rags all furnish material for the loom. And the results you get with such material are simply wonderful. You can be sure when you own a Newcomb, that you will have more than enough work to keep you busy. Many of our customers make from \$25 to \$30 a week weaving with the Newcomb, and you can do likewise.



W. B. STARK

who will help you start a money-making business.

NO EXPERIENCE NECESSARY

Let me send you some samples of the work you can do on a Newcomb Loom. The more you need the money the more I can and will help you to get started to making it.

CLASSIFIED ADVERTISEMENTS

No display advertising will be placed in this department and no type larger than 6-point. The first three words only to be printed in capital letters. Each abbreviation and number will count as one word. Rate 10 cents per word for each insertion. No advertisement inserted for less than \$1 per issue. We cannot afford to do any book-keeping at this rate. Cash must accompany every order. Orders must reach us not later than the 15th of the month previous to the month in which the advertisement is to appear.

Terms: CASH WITH ORDER.

Green's Fruit Grower Co., Rochester, N. Y.

HELP WANTED

REPORT LOCAL INFORMATION. Names, etc. to us. No canvassing. Spare time. Exceptional proposition. Enclose stamp. National Information Sales Company, Dept. AVH, Cincinnati, O.

MEN AND WOMEN over 18 wanted for U. S. Government Positions. \$65 to \$150 Month. Thousands of vacancies this year. 'Full' unnecessary. Farmers eligible. Common education sufficient. Write for free book of positions open to you. Franklin Institute, Dept. W147, Rochester, N. Y.

MALE HELP WANTED

FREE ILLUSTRATED BOOK tells of about 300,000 protected positions in U. S. service. Thousands of vacancies every year. There is a big chance here for you, sure and generous pay, lifetime employment. Just ask for booklet S-1146. No obligation. Earl Hopma, Washington, D. C.

LOCAL REPRESENTATIVE WANTED. Spend income as desired. Right man to act as our representative after learning our business thoroughly by mail. Former experience unnecessary. All we require is honesty, ability, ambition and willingness to learn a lucrative business. No soliciting or traveling. All or spare time only. This is an exceptional opportunity for a man in your section to get into a highly paying business without capital and become independent for life. Write at once for full particulars. National Co-Operative Realty Company, 1-638, Marden Building, Washington, D. C.

FARMS WANTED

Wanted to hear from owner who has good farm for sale. Send description and price. Northwestern Business Agency, Minneapolis, Minn.

FARMS WANTED. We have direct buyers. Don't pay commissions. Write describing property, naming lowest price. We help buyers locate desirable property free. American Investment Association, 32 Palace Bldg., Minneapolis, Minn.

COLD STORAGE

COLD STORAGE is the best way of keeping fruit—everybody knows that. Investigate the Cooper Brine System, using ice and salt for cooling. Superior results over common storage and also over refrigerating machine; reasonable first cost; absolute safety against breakdown. Madison Cooper Co., 110 Court St., Calcium, N. Y.

FOR SALE

DUROC AUGUST PIGS, \$15 pair, pedigree. S. A. Weeks, DeGraff, Ohio.

FOR SALE Cumberland and Gregg Raspberries also Blackberries. John Molden, Barnesville, Ohio.

ORCHARD FOR SALE: Apple Orchard in Idaho. 14 acres. Whips planted 5 years ago. Best commercial varieties. Scientifically grown. Irrigated. Fine condition. Exceptional transportation facilities. Dry mild climate. Fish and game in near-by mountains. Five miles from two live cities. Write for terms. Edward Browning, Corvallis, Penna.

EXTRA FINE PECANS. Sam H. James of Mound, Louisiana, has had 35 years experience in growing pecans, and is now the veteran pecan grower of America. He has received five gold medals on pecans at World's Fairs. He has for sale budded pecan trees, eating and seed pecans. He can supply budding and grafting wood, Japan clover seed, also budded trees of our best native persimmon. Before ordering write for price list. Address Sam H. James, Mound, La.

FOR SALE: 5000 White Pine hot bed sash, sizes 3' 6" x 6', bottom rail 1" x 4", top rail 1 1/2" x 3 1/2", sides 1 1/2" x 3 1/2", muttons 1 1/2" x 1 1/2", 44 D. S. glass 6 x 7 1/2". Prices in lots of 25, \$1.25 each. These sashes were built to order and cost \$3.50 each in carload lots. 25000 square feet second hand, 2 1/2 gauge corrugated iron measuring 26" x 9' and 26" x 10' at \$1.10 per square. 10,000 squares 1-ply rubber roofing, with nails and cement, 50¢ per roll. Buffalo House Wrecking & Salvage Co., Buffalo, N. Y.

FARMS FOR SALE.

WILL SELL CHEAP Small Hen and Fruit Farm one mile from village. Good Buildings. Fertile land. H. Carlisle, Millers Falls, Mass.

FOR SALE Three fine Fruit Farms near Keyser, W. Va. One large grazing farm, others in fruit belt partly set in fruit; bearing. For prices and description, address S. W. Umstat, Keyser, W. Va.

NEW JERSEY FARMS—184 Acre Fruit Farm, 9000 apple, peach, quince, cherry, pear trees, asparagus, berries. Fine home farm. Send for list choice profitable farms. A. W. Dresser, Burlington, N. J.

MONEY-MAKING FARMS: 17 States, \$10 to \$50 an acre; live stock, tools and crops often included to settle quickly. Big illustrated Catalogue No. 36 free. E. A. Strout Farm Agency, Station 1233, 47 West 34th Street, New York.

REAL ESTATE FOR SALE

SELL YOUR PROPERTY quickly for cash, no matter where located, particulars free. Real Estate Salesman Co., Dept. 22, Lincoln, Neb.

85 ACRE FRUIT FARM, large orchard, good location, buildings and water, price \$1,800. Twiss Real Estate Agency, Keene, N. H.

FARM BARGAINS—Near Philadelphia; fruit, truck, poultry, dairy; fertile soil; excellent markets; catalog free; requirements. W. M. Stevens, Perkasie, Pa.

FREE LAND Can locate two hundred people on choice Government homestead land, Minnesota. Also low priced land for investment and farming. R. E. Fisher, Bemidji, Minn.

MISCELLANEOUS

LATEST SONG HIT, "Close Your Eyes Mr. Moonman." Just out; ten cents. Box 1349 Pittsburgh, Penna.

BROODER AND POULTRY house heaters. Som. thing new; just what poultrymen need; money maker. Circular free. Old Honesty Heater Co., Dept. G., New Washington, O.

PATENTS THAT PROTECT. Careful, honest work in every case. Patent your ideas, they may bring wealth. 64-page book free. W. T. FitzGerald & Co., 501 F St., Washington, D. C.

Making Cider on the Farm.

As the juice is pressed out of the pulp or pomace, allow it to run through a hair sieve into a wooden vessel if possible. Keep all vessels covered to prevent flies from getting to the juice. As soon as a sufficient quantity of juice has been obtained put it into a clean, strong, wooden barrel, holding say, fifty gallons or so, says Farmer and Breeder. Fill the barrel nearly full; that is, put about forty-five gallons of juice into a fifty-gallon barrel, and leave the bung hole open. Allow it to ferment at 60 degrees F. In a short time a violent fermentation will be set up and part of the scum will come out through the bung hole. When the most violent fermentation has subsided, which will be in the course of five to seven days, depending upon the tem-

But he and his wife are now on the wing for Cuba, Florida or Mexico—probably Cuba. And after spending their winter pleasantly in Cuba, the very same pair will fly straight back to your orchard next spring, and nest, perhaps, on the very same branch.

A little bird called the knot—scientifically he is *Tringa canutus*, because he was a great favorite with King Canute—has been observed by Mr. Guelph flying all the way from Alaska to our Atlantic coast; and the bird was doing this just on a little side trip, for diversion, as it were; for the knot winters in the extreme southern part of South America. Think of a fall journey, on your own wings, from northern Alaska to southern Patagonia, with a little run to Long Island thrown in!

It is quite evident that the human aviators have something still to learn from the feathered variety.

What a gentleman's hobby fruit growing has been from early times. It is revealed in the private letters of the great Thomas Jefferson that he often longed to lay aside the cares of state and devote himself solely to orchard and field. And many another, of high and low degree alike, has shared with him the same desire. Young men, he declares, might well close

quinces, 64; grapes, 52; potatoes, early 55, late 62; beans, 68; cabbage, 53; hay, 83; corn, 63; wheat, 95; rye, 92; oats, 92; barley, 93; buckwheat, 67; hops, 62; alfalfa, 82.

Literal.

A lawyer was cross-examining an old, German about the position of the doors, windows, and so forth, in a house in which a certain transaction occurred.

"And now, my good man," said the lawyer, "will you be good enough to tell the court how the stairs run in the house?"

The German looked dazed and unsettled for a moment. "How do the stairs run?" he queried.

"Yes, how do the stairs run?"

"Well," continued the witness, after a moment's thought, "ven I am oop-stairs dey run down, and ven I am down-stairs dey run oop."

Manuring Old Orchards.

In one experiment a result of a four-year test showed that 12 tons of manure to the acre produced a gain of 463 bushels over the average yield of the check plot, the total being 637 bushels on the manured portion and 174 bushels on the check plot. At 50 cents a bushel, the twelve loads of manure returned, in an increased yield, a value of \$231. In the same experiment, the addition of nitrogen and phosphoric acid increased the yield over the check by 378 bushels the average being 542 bushels to the acre; nitrogen and potash meant an average yield of 468 bushels, an increase of 294 bushels to the acre; potash and phosphoric acid resulted in a gain of 103 bushels, the average being 278 bushels; the complete fertilizer produced a gain of 340 bushels, the average being 513 bushels. Results of liming were negative.

In another orchard the average yield of the check was 73 bushels per acre. Nitrogen and phosphoric acid brought an increase of 377 bushels; nitrogen and potash a gain of 259 bushels; manure 240 bushels, and the complete fertilizer 254 bushels. The average result of all the experiments showed manure meant a gain of 122 per cent.; complete fertilizer a gain of 79 per cent. and lime a gain of only 11 per cent.

Although the apple crop consumes more potash than nitrogen or phosphoric acid from the soil, the addition of potash generally does not have so beneficial an influence as the latter fertilizers. This is thought to be because there is nearly enough potash present in most soil. Manure is particularly valuable and lime not generally recommended. After making a thorough study of the results, the Pennsylvania State College recommends the use of 30 pounds of nitrogen, 50 pounds of phosphoric acid, and from 25 to 50 pounds of potash to the acre.

To get the nitrogen, 50 pounds of nitrate of soda and 75 pounds of dried blood would be required. The phosphoric acid could be furnished in 350 pounds of acid phosphate and the potash in from 50 to 100 pounds of the muriate salt. These should be mixed thoroughly before applying. It would take about 13 pounds of the mixture to each full-grown tree, with 40 trees to the acre. The time for applying is from the time the fruit sets until about the middle of July. When the fruit crop promises to be light not so much will be needed. Heavier applications are recommended when a full fruit crop is set, so as to help develop fruit buds for the next year. This method will keep the production more uniform from year to year. The manure or fertilizer is simply scattered on top of the ground, not too close to the trunk of the tree. It should be applied over the area covered by the spread of the branches.

Transients.

A kind-hearted gentleman was walking thru the back streets of an American town when he came across a woman unmercifully beating a little boy. "Here," he said, seizing her by the arm, "you must not do that. What has he done, anyway?" "Mustn't do that! What has he done?" ejaculated the enraged mother. "If you want to know, he's been and left the chicken house door open, and all dem chickens got out."

"Well, that is not so serious," said the gentleman, soothingly; "chickens always come home to roost."

"Come home!" snorted the woman; "dem chickens will all go home!"—Pathfinder.

Unnecessary Labor.

Johnny—Mamma, will you wash my face?

Mamma—Why, Johnny, can't you do that?

Johnny—Yes, but I'll have to wet my hands and they don't need it.—Lippincott's.

Today there is an old and a new school of womanhood. I have run away from the old and have not yet been able to find the new.



Apple Day at Rochester, N. Y.

The above illustration, re-engraved from the Rochester Democrat & Chronicle, tells its own story of the attractiveness of apples and their products. Apple Day occurred Oct. 21st. Rochester being in the center of the greatest apple growing section of the world, the Rochester daily papers give prominence to the subject as do the publications of various states where Apple Day has been more widely celebrated this year than ever before. At Rochester, N. Y., the hotels, clubs, hospitals and the various benevolent associations were regaled with the best apples that could be secured. Last year I presented to the attendants of my club a basket of high class apples, such as Banana, McIntosh, Fameuse, and Hubbardston. When Apple Day came around this year these club men remembered my donation of last year and asked me to sell them a box of my best apples, which they desired to serve at the noon meal on Apple Day. I sent them a box of Wismer's Dessert, which are the nearest ripe at this season. I was told later that the entire box, containing nearly a bushel, was consumed by the club members and their guests at one meal.

perature at which the juice is kept, syphon off the clear liquid into a clean barrel or cask of some kind, being careful not to transfer any sediment. To this partly clarified juice add one gallon of finely powdered charcoal and allow it to stand in a cool place, as in a cellar, for another week or so with the bung hole closed. Then syphon off the clear liquid once more and add one ounce of isinglass, previously dissolved in a little hot water, to fifty gallons of juice. Allow this to remain for a few days and then syphon off once more. Then add one-eighth of an ounce of calcium sulphite per gallon of cider. Do this by first dissolving the sulphite in a small quantity of cider and then add this solution to the barrel. The cider is then ready to be drawn off into bottles. Leave the bottles loosely stoppered for a day or two and then tightly stopper and wire down the stoppers. Set aside in a cool cellar and use as desired.

The addition of the calcium sulphite prevents the cider from souring. The charcoal and isinglass, referred to, aid in giving the cider the desired color and also to clarify it.

The little humming bird is not quite so particular about his summers. This little creature, which is not much bigger than a thimble, may have nested in your apple tree in Westchester County this summer.

their academical education with this, as the crown of all other sciences.

MARKED INCREASE IN PEACH YIELD.

New York State Department of Agriculture Gives Out Figures.

A marked increase in the yield of peaches and a falling off in various crops of the state is shown by reports received recently by the State Department of Agriculture. The Lake peach belt in Western New York increased 85 per cent. over last year's crop—the largest ever grown—and the peach growing counties of the Hudson valley show percentages at least double that of a year ago.

Corn is very short averaging, 63 per cent. of last year's crop, which was also short. The hay crop as a whole is light. Buckwheat shows a marked falling off from last year.

The yield of wheat, rye and barley is practically the same as in 1912. The severe frost of last week seriously affected buckwheat, beans and late potatoes in various sections.

Department estimates for the whole state, based upon last year's crop as 100, show these percentages: Apples, Fall, 44; Winter, 32; Baldwins, 32; Greenings, 17; pears, Bartletts, 96; Kieffers, 76, other varieties, 80; plums, 64; peaches, 118.

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The Old Farm Home.

Written for Green's Fruit Grower by J. H. F.

I'd like to go back to the old home once more, And climb the hills that seemed mountain high, I'd like to chase the cotton tails and shoot the squirrels, Around the dear old place so often I had done before. I'd like to go back to scenes I used to like, The little school house just close besides the road, To see the girls with rosy cheeks so red, That blushed so pretty neath the curls on each saucy head. I'd like to go back when singing school begins, When winter blasts would howl without, yet warm within, I'd like to listen to strains that come from voices then, From lips so sweet I'd like to kiss them o'er again. I'd like to go back and find the same boys there, So full of fun and mirth so free from worldly care, I'd like to clasp them by the hand and see them now, As light as once before the frost of time was on their brow.

Gleeful Prospect.

Anyway, it will be pleasing to experiment with the pleasure of sending express packages at reasonable rates.

Dynamiting Soil.

I took a dirt auger and bored a small hole to a depth of 30 inches and exploded one-half stick of 40 per cent. dynamite in the bottom of it. It did not tear up the surface as I had expected; but when I dug down to see what the effect was underneath, I was surprised to find the hard sub-soil thoroughly pulverized to a distance of one and one-half to two feet on each side. This seemed to be in excellent condition for my young trees, and I gave the other holes in the old road the same treatment.

Carloads of Apples Wanted.

The office at Green's Fruit Grower is almost besieged with applications from men in various parts of the country who desire to purchase carloads of apples, both No. 1 and No. 2. This indicates that there is a scarcity of apples throughout the country. Readers of Green's Fruit Grower who have a good crop of winter apples will do well to write Green's Fruit Grower stating particulars as to varieties, quality and price, so that we can give their names and addresses to inquiring people, thus aiding them in making sale of their fruit.

At Green's Fruit Farm we have just sold our last carload of No. 2 Baldwins at 50 cents per bushel. We are selling high quality apples such as Blenheim Orange, Banana and Hubbardston at \$2.00 per standard box holding nearly a bushel. No. 2 Banana apples are selling at \$1.00 per bushel.

Circassian Walnut.

The United States, says the Department of Agriculture, is probably the largest consumer of Circassian walnut, one of the world's best known and most expensive cabinet woods.

The high cost of Circassian walnut is due to the scarcity of the beautifully figured variety demanded for furniture and interior finish, for the tree itself is more widely distributed than almost any other of commercial importance. The demand for the best wood, however, has always outrun the supply. Even in the Eighteenth century, when wars in Europe were frequent, so much Circassian walnut was used for gunstocks that the supply was seriously depleted. Early in the Nineteenth century the wood of 12,000 trees was used for this purpose alone. Single trees, containing choice burls of fine birdseye figures have sold for more than \$3000.

Food Value of Nuts.

Rich in nourishment, nuts are an unappreciated substitute for meat. Peanuts, for example, afford twice as much nourishment as beef steak, rice or beans, and eight times as much as potatoes.

Next in food values to the peanut, comes the chestnut, which is so starchy as to be almost a bread. In Italian kitchens, it takes the place of cereals. Chestnuts are used in soups, sauces, purees, forcemeats, entrees, and all manner of sweet dessert dishes.

Fresh almonds are exceedingly nutritious, but prove far more digestible when blanched. This is quickly done by covering the nut meats with boiling water, letting them stand three or four minutes, then rubbing off the brown skins between the thumb and forefinger. Dried, then salted in the oven, almonds make an excellent digester, a couple of them, carefully masticated, frequently relieving indigestion from other causes.

English walnuts, hickory nuts, and pecans are also high in nutritive value. The black walnut, which is stronger in flavor, is growing in favor for cakes, salads, and pickles. The pistachio seed or nut, is being imported in increasing quantities, and the little green kernels are not only used for coloring and flavoring but as digesters.

Hard to Tell.—"There were a lot of old shoes on the street when I went out this morning." "Wedding or a cat fight, do you suppose?"—Boston Transcript.

Power and the Man.

A man is measured by the power that he uses. "The Man with the Hoe"—"almost a brother to the insensible clod he stands upon"—is a type of the lowest plane of human effort. His body only is alive; his mind is dormant, says the Twentieth Century Farmer.

Continued exhausting physical exercise deadens mental activity and prevents mental development.

"Grant me but to see, and Ajax asks no more," was the cry of the blinded hero in the thick blackness of the hostile camp. That cry typifies the yearning of every man that struggles toward a higher plane of effort. Brain power indefinitely multiplies muscular power, and finally supplants it. The discovery of the use of the lever and of the inclined plane, which made the powerful screw possible, marks a new level in human achievement. The engine, the product of man's brain, doing man's work for him, touches the highest level of achievement in human labor.

Brain power emancipates man from brutalizing drudgery of mere physical toil. Brain power makes possible the cultivation of the humanities, and the art of living.

"You admit, then," inquired Judge Boulder severely, "that you stole the pig?" "I suppose I must," said the prisoner. "Very well," returned the magistrate with decision. "There has been a lot of pig stealing going on around here lately, and I am going to make an example of you or none of us will be safe."

WILL YOU PLEASE ANSWER THIS QUESTION BY POSTAL CARD?

Have you Followed my Advice.

I desire to know whether many of the readers of Green's Fruit Grower have followed my advice and have planted in their garden or elsewhere near their home what I call a hedge row of dwarf pear trees.

For years I have been telling my readers that I feel I have made a discovery of importance to every lover of fruit, which is as follows: I planted a row of dwarf pear trees through my garden, the distance being something over 100 feet. The little pear trees were planted three feet apart in this row, but there was nothing to seriously obstruct the sunshine and air on either side of this row of trees. These trees were planted nearly fifteen years ago and yet they are not crowding each other excessively in this limited space. Every year most of the trees have borne abundantly and I have given my family an abundant supply of pears from the earliest to the latest to ripen. Do you not see how easily you can have an abundant supply of different varieties of pears by planting this row closely through your garden? What I want to know is how many of you have followed my advice.

Another similar discovery I made when on building a house on a city lot I desired something to mark the boundary lines of the back yard to prevent too free access of children or animals, therefore I dug a trench on one side of the back yard where the line fence should have been, and another similar trench at the rear of this lot. In this trench I planted peach trees 12 to 18 inches apart in the row. These trees lived and thrived, having abundance of air and sunshine on both sides of the row. The trees act as a line fence but did not cost one-tenth part as much as a fence would have cost.

Now as to the results in fruit, those peach trees began to bear fruit soon after planting and continued to bear fruit abundantly. This house was leased to a family. One day I was invited in to see the many baskets of beautiful peaches which the lady had just gathered from the trees, and there were many more peaches remaining on what we may call a peach hedge. On another occasion this lady invited me into her pantry and showed me beautiful canned peaches, embracing what must have been originally several bushels of fruit, which she had in cans for winter use, all of which had grown upon these two short rows of peach trees planted closely together in a trench. The entire length of these two short rows of peaches could not have been over sixty feet. The lot was only 40 feet wide.

Later on building another house in Rochester I followed the same plan that I did in planting the peach trees but instead of peach trees planted plum trees in a trench on the east side and the south end of a small city lot. These trees when I last saw them were thriving and I do not doubt have borne many crops of fine fruit. Apple trees could be planted in this manner but the apple tree does not come into bearing so soon as peach and dwarf pears. Hardy red cherries could be planted in such rows closely and bear abundantly and be an object of great beauty about the home.

To destroy caterpillars, hang pieces of woolen rag on every tree and bush; the caterpillars will congregate on them and they are then easily caught.

Merry Christmas

WILL SOON BE HERE

And we want to help you spread the Christmas Spirit to your friends. To that end we want to send you forty-eight beautiful very high class Christmas post cards all in a beautiful holly box.

By their use you can visit all your friends at Christmas time and spread the Christmas Spirit of Good Cheer.



Now is the time to get them. Do not wait. We have them now in beautiful holly boxes and want to send your box before it is taken by some one else.

To Subscribers

Send only fifty cents in stamps or coin and we will extend your subscription a whole year from the time you have already paid for, and send you the Christmas holly box with the forty-eight beautiful Christmas and New Years' cards prepaid to your door.

To Others

If you are not a subscriber now send the order just the same. We will enter your new subscription for a whole year and make you a present of the box of beautiful Christmas cards.

Remember that a personal message of good cheer is better than a present of mere commercial value.



These beautiful cards cannot be duplicated and this offer holds good only while the cards last.

Send at once. We are sure that you will be delighted with these beautiful cards.

ADDRESS

Green's Fruit Grower Co.

ROCHESTER, N. Y.

CLASSIFIED ADVERTISEMENTS

No display advertising will be placed in this department and no type larger than 6-point. The first three words only to be printed in capital letters. Each abbreviation and number will count as one word. Rate 10 cents per word for each insertion. No advertisement inserted for less than \$1 per issue. We cannot afford to do any book-keeping at this rate. Cash must accompany every order. Orders must reach us not later than the 15th of the month previous to the month in which the advertisement is to appear.

Terms: CASH WITH ORDER.

Green's Fruit Grower Co., Rochester, N. Y.

HELP WANTED

REPORT LOCAL INFORMATION, Names, etc. to us. No canvassing. Spare time. Exceptional proposition. Enclose stamp. National Information Sales Company, Dept. AVH, Cincinnati, O.

MEN AND WOMEN over 18 wanted for U. S. Government Positions. \$65 to \$150 Month. Thousands of appointments this year. 'Pull' unnecessary. Farmers eligible. Common education sufficient. Write for free book of positions open to you. Franklin Institute, Dept. W147, Rochester, N. Y.

MALE HELP WANTED

FREE ILLUSTRATED BOOK tells of about 300,000 protected positions in U. S. service. Thousands of vacancies every year. There is a big chance here for you, sure and generous pay, lifetime employment. Just ask for booklet S-1146. No obligation. Earl Hopkins, Washington, D. C.

LOCAL REPRESENTATIVE WANTED. Spend income assured right man to act as our representative after learning our business thoroughly by mail. Former experience unnecessary. All we require is honesty, ability, ambition and willingness to learn a lucrative business. No soliciting or traveling. All or spare time only. This is an exceptional opportunity for a man in your section to get into a big paying business without capital and become independent for life. Write at once for full particulars. National Co-Operative Realty Company, L-638, Marden Building, Washington, D. C.

FARMS WANTED

Wanted to hear from owner who has good farm for sale. Send description and price. Northwestern Business Agency, Minneapolis, Minn.

FARMS WANTED. We have direct buyers. Don't pay commissions. Write describing property, naming lowest price. We help buyers locate desirable property free. American Investment Association, 32 Palace Bldg., Minneapolis, Minn.

COLD STORAGE

COLD STORAGE is the best way of keeping fruit—everybody knows that. Investigate the Cooper Brine System, using ice and salt for cooling. Superior results over common storage and also over refrigerating machine; reasonable first cost; absolute safety against breakdown. Madison Cooper Co., 110 Court St., Calcium, N. Y.

FOR SALE

DURO AUGUST PIGS, \$15 pair, pedigree. S. A. Weeks, DeGraff, Ohio.

FOR SALE Cumberland and Gregg Raspberries also Blackberries. John Molden, Barnesville, Ohio.

ORCHARD FOR SALE.—Apple Orchard in Idaho. 14 acres. Whips planted 5 years ago. Best commercial varieties. Scientifically grown. Irrigated. Fine condition. Exceptional transportation facilities. Dry mild climate. Fish and game in near-by mountains. Five miles from two live cities. Write for terms. Edward Browning, Cornwall, Penna.

EXTRA FINE PECANS. Sam H. James of Mound, Louisiana, has had 35 years experience in growing pecans, and is now the veteran pecan grower of America. He has received five gold medals on pecans at World's Fairs. He has for sale budded pecan trees, eating and seed pecans. He can supply budding and grafting wood, Japan clover seed, also budded trees of our best native persimmons. Before ordering write for price list. Address Sam H. James, Mound, La.

FOR SALE: 5000 White Pine hot bed sash, sizes 3' 6" x 6', bottom rail 1" x 4 1/2", top rail 1 1/2" x 2 3/4", sashes 1 1/2" x 3 1/2", muttons 1 1/2" x 1 3/4", 44 D. S. glass 6 x 7 1/2". Prices in lots of 25, \$1.25 each. The sash were built to order and cost \$3.50 each in carload lots. 25000 square feet second hand d. 2 gauge corrugated iron measuring 26' x 9' and 26' x 10' at \$1.10 per square. 10,000 squares 1-ply rubber roofing, with nails and cement, 50¢ per roll. Buffalo House Wrecking & Salvage Co., Buffalo, N. Y.

FARMS FOR SALE.

WILL SELL CHEAP Small Hen and Fruit Farm one mile from village. Good Buildings. Fertile land. H. Carlisle, Millers Falls, Mass.

FOR SALE Three fine Fruit Farms near Keyser, W. Va. One large grazing Farm, others in Fruit belt partly set in fruit; bearing. For prices and description, address S. W. Umstat, Keyser, W. Va.

NEW JERSEY FARMS—184 Acre Fruit Farm, 9000 apple, peach, quince, cherry, pear trees, asparagus, berries. Fine home farm. Send for list choice profitable farms. A. W. Dresser, Burlington, N. J.

MONEY-MAKING FARMS: 17 States, \$10 to \$50 an acre; live stock, tools and crops offered included to settle quickly. Big illustrated Catalogue No. 36 free. E. A. Strout Farm Agency, Station 1233, 47 West 34th Street, New York.

REAL ESTATE FOR SALE

SELL YOUR PROPERTY quickly for cash, no matter where located, particulars free. Real Estate Salesman Co., Dept. 22, Lincoln, Neb.

85 ACRE FRUIT FARM, large orchard, good location, buildings and water, price \$1,800. Twiss Real Estate Agency, Keene, N. H.

FARM BARGAINS—Near Philadelphia; fruit, truck, poultry, dairy; fertile soil; excellent markets; catalog free; requirements. W. M. Stevens, Perkasie, Pa.

FREE LAND Can locate two hundred people on choice Government homestead land, Minnesota. Also low priced land for investment and farming. R. E. Fisher, Bemidji, Minn.

MISCELLANEOUS

LATEST SONG HIT, "Close Your Eyes Mr. Moonman." Just out; ten cents. Box 1349 Pittsburgh, Penna.

BROODER AND POULTRY house heaters. Som. thing new; just what poultrymen need; money maker. Circular free. Old Honeys Heater Co., Dept. G., New Washington, O.

PATENTS THAT PROTECT. Careful, honest work in every case. Patent your ideas, they may bring wealth. 64-page book free. W. T. Fitzgerald & Co., 801 F St., Washington, D. C.

Making Cider on the Farm.

As the juice is pressed out of the pulp or pomace, allow it to run through a hair sieve into a wooden vessel if possible. Keep all vessels covered to prevent flies from getting to the juice. As soon as a sufficient quantity of juice has been obtained put it into a clean, strong, wooden barrel, holding say, fifty gallons or so, says Farmer and Breeder. Fill the barrel nearly full; that is, put about forty-five gallons of juice into a fifty-gallon barrel, and leave the bung hole open. Allow it to ferment at 60 degrees F. In a short time a violent fermentation will be set up and part of the scum will come out through the bung hole. When the most violent fermentation has subsided, which will be in the course of five to seven days, depending upon the tem-

But he and his wife are now on the wing for Cuba, Florida or Mexico—probably Cuba. And after spending their winter pleasantly in Cuba, the very same pair will fly straight back to your orchard next spring, and nest, perhaps, on the very same branch.

A little bird called the knot—scientifically he is Tringa canutus, because he was a great favorite with King Canute—has been observed by Mr. Guelph flying all the way from Alaska to our Atlantic coast; and the bird was doing this just on a little side trip, for diversion, as it were; for the knot winters in the extreme southern part of South America. Think of a fall journey, on your own wings, from northern Alaska to southern Patagonia, with a little run to Long Island thrown in!

It is quite evident that the human aviators have something still to learn from the feathered variety.

What a gentleman's hobby fruit growing has been from early times. It is revealed in the private letters of the great Thomas Jefferson that he often longed to lay aside the cares of state and devote himself solely to orchard and field. And many another, of high and low degree alike, has shared with him the same desire. Young men, he declares, might well close



Apple Day at Rochester, N. Y.

The above illustration, re-engraved from the Rochester Democrat & Chronicle, tells its own story of the attractiveness of apples and their products. Apple Day occurred Oct. 21st. Rochester being in the center of the greatest apple growing section of the world, the Rochester daily papers give prominence to the subject as do the publications of various states where Apple Day has been more widely celebrated this year than ever before. At Rochester, N. Y., the hotels, clubs, hospitals and the various benevolent associations were regaled with the best apples that could be secured. Last year I presented to the attendants of my club a basket of high class apples, such as Banana, McIntosh, Fameuse and Hubbardston. When Apple Day came around this year these club men remembered my donation of last year and asked me to sell them a box of my best apples, which they desired to serve at the noon meal on Apple Day. I sent them a box of Wisner's Dessert, which are the nearest ripe at this season. I was told later that the entire box, containing nearly a bushel, was consumed by the club members and their guests at one meal.

perature at which the juice is kept, syphon off the clear liquid into a clean barrel or cask of some kind, being careful not to transfer any sediment. To this partly clarified juice add one gallon of finely powdered charcoal and allow it to stand in a cool place, as in a cellar, for another week or so with the bung hole closed. Then syphon off the clear liquid once more and add one ounce of isinglass, previously dissolved in a little hot water, to fifty gallons of juice. Allow this to remain for a few days and then syphon off once more. Then add one-eighth of an ounce of calcium sulphite per gallon of cider. Do this by first dissolving the sulphite in a small quantity of cider and then add this solution to the barrel. The cider is then ready to be drawn off into bottles. Leave the bottles loosely stoppered for a day or two and then tightly stopper and wire down the stoppers. Set aside in a cool cellar and use as desired.

The addition of the calcium sulphite prevents the cider from souring. The charcoal and isinglass, referred to, aid in giving the cider the desired color and also to clarify it.

The little humming bird is not quite so particular about his summers. This little creature, which is not much bigger than a thimble, may have nested in your apple tree in Westchester County this summer.

their academical education with this, as the crown of all other sciences.

MARKED INCREASE IN PEACH YIELD.

New York State Department of Agriculture Gives Out Figures.

A marked increase in the yield of peaches and a falling off in various crops of the state is shown by reports received recently by the State Department of Agriculture. The Lake peach belt in Western New York increased 85 per cent. over last year's crop—the largest ever grown—and the peach growing counties of the Hudson valley show percentages at least double that of a year ago.

Corn is very short averaging, 63 per cent. of last year's crop, which was also short. The hay crop as a whole is light. Buckwheat shows a marked falling off from last year.

The yield of wheat, rye and barley is practically the same as in 1912. The severe frost of last week seriously affected buckwheat, beans and late potatoes in various sections.

Department estimates for the whole state, based upon last year's crop as 100, show these percentages: Apples, Fall, 44; Winter, 32; Baldwins, 32; Greenings, 17; pears, Bartletts, 96; Kieffers, 76, other varieties, 86; plums, 64; peaches, 118.

quinces, 64; grapes, 52; potatoes, early 55, late 62; beans, 68; cabbage, 53; hay, 83; corn, 63; wheat, 95; rye, 92; oats, 92; barley, 93; buckwheat, 67; hops, 62; alfalfa, 82.

Literal.

A lawyer was cross-examining an old, German about the position of the doors, windows, and so forth, in a house in which a certain transaction occurred.

"And now, my good man," said the lawyer, "will you be good enough to tell the court how the stairs run in the house?"

The German looked dazed and unsettled for a moment. "How do the stairs run?" he queried.

"Yes, how do the stairs run?"

"Vell," continued the witness, after a moment's thought, "ven I am oop-stairs dey run down, and ven I am down-stairs dey run oop."

Manuring Old Orchards.

In one experiment a result of a four-year test showed that 12 tons of manure to the acre produced a gain of 463 bushels over the average yield of the check plot, the total being 637 bushels on the manured portion and 174 bushels on the check plot. At 60 cents a bushel, the twelve loads of manure returned, in an increased yield, a value of \$231. In the same experiment, the addition of nitrogen and phosphoric acid increased the yield over the check by 378 bushels the average being 542 bushels to the acre; nitrogen and potash meant an average yield of 468 bushels, an increase of 294 bushels to the acre; potash and phosphoric acid resulted in a gain of 103 bushels, the average being 278 bushels; the complete fertilizer produced a gain of 340 bushels, the average being 513 bushels. Results of liming were negative.

In another orchard the average yield of the check was 73 bushels per acre. Nitrogen and phosphoric acid brought an increase of 377 bushels; nitrogen and potash a gain of 259 bushels; manure 240 bushels, and the complete fertilizer 254 bushels. The average result of all the experiments showed manure meant a gain of 122 per cent.; complete fertilizer a gain of 79 per cent. and lime a gain of only 11 per cent.

Although the apple crop consumes more potash than nitrogen or phosphoric acid from the soil, the addition of potash generally does not have so beneficial an influence as the latter fertilizers. This is thought to be because there is nearly enough potash present in most soil. Manure is particularly valuable and lime not generally recommended. After making a thorough study of the results, the Pennsylvania State College recommends the use of 30 pounds of nitrogen, 50 pounds of phosphoric acid, and from 25 to 50 pounds of potash to the acre.

To get the nitrogen, 50 pounds of nitrate of soda and 75 pounds of dried blood would be required. The phosphoric acid could be furnished in 350 pounds of acid phosphate and the potash in from 50 to 100 pounds of the muriate salt. These should be mixed thoroughly before applying. It would take about 13 pounds of the mixture to each full-grown tree, with 40 trees to the acre. The time for applying is from the time the fruit sets until about the middle of July. When the fruit crop promises to be light not so much will be needed. Heavier applications are recommended when a full fruit crop is set, so as to help develop fruit buds for the next year. This method will keep the production more uniform from year to year. The manure or fertilizer is simply scattered on top of the ground, not too close to the trunk of the tree. It should be applied over the area covered by the spread of the branches.

Transients.

A kind-hearted gentleman was walking thru the back streets of an American town when he came across a woman unmercifully beating a little boy. "Here," he said, seizing her by the arm, "you must not do that. What has he done, anyway?" "Mustn't do that! What has he done?" ejaculated the enraged mother. "If you want to know, he's Leen and left de chicken house door open, an' all dem chickens got out."

"Well, that is not so serious," said the gentleman, soothingly; "chickens always come home to roost."

"Come home!" snorted the woman; "dem chickens will all go home!"—Pathfinder.

Unnecessary Labor.

Johnny—Mamma, will you wash my face?

Mamma—Why, Johnny, can't you do that?

Johnny—Yes, but I'll have to wet my hands and they don't need it.—Lippincott's.

Today there is an old and a new school of womanhood. I have run away from the old and have not yet been able to find the new.

The Old Farm Home.

Written for Green's Fruit Grower by J. H. F.

I'd like to go back to the old home once more, And climb the hills that seemed mountain high, I'd like to chase the cotton tails and shoot the squirrels, Around the dear old place so often I had done before. I'd like to go back to scenes I used to like, The little school house just close besides the road, I can see the girls with rosy cheeks so red, That blushed so pretty neath the curls on each saucy head. I'd like to go back when singing school begins, When winter blasts would howl without, yet warm within, I'd like to listen to strains that come from voices then, From lips so sweet I'd like to kiss them o'er again. I'd like to go back and find the same boys there, So full of fun and mirth so free from worldly care, I'd like to clasp them by the hand and see them now, As light as once before the frost of time was on their brow.

Gleeful Prospect.

Anyway, it will be pleasing to experiment with the pleasure of sending express packages at reasonable rates.

Dynamiting Soil.

I took a dirt auger and bored a small hole to a depth of 30 inches and exploded one-half stick of 40 per cent. dynamite in the bottom of it. It did not tear up the surface as I had expected; but when I dug down to see what the effect was underneath, I was surprised to find the hard sub-soil thoroughly pulverized to a distance of one and one-half to two feet on each side. This seemed to be in excellent condition for my young trees, and I gave the other holes in the old road the same treatment.

Carloads of Apples Wanted.

The office at Green's Fruit Grower is almost besieged with applications from man in various parts of the country who desire to purchase carloads of apples, both No. 1 and No. 2. This indicates that there is a scarcity of apples throughout the country. Readers of Green's Fruit Grower who have a good crop of winter apples will do well to write Green's Fruit Grower stating particulars as to varieties, quality and price, so that we can give their names and addresses to inquiring people, thus aiding them in making sale of their fruit.

At Green's Fruit Farm we have just sold our last carload of No. 2 Baldwins at 50 cents per bushel. We are selling high quality apples such as Blenheim Orange, Banana and Hubbardston at \$2.00 per standard box holding nearly a bushel. No. 2 Banana apples are selling at \$1.00 per bushel.

Circassian Walnut.

The United States, says the Department of Agriculture, is probably the largest consumer of Circassian walnut, one of the world's best known and most expensive cabinet woods.

The high cost of Circassian walnut is due to the scarcity of the beautifully figured variety demanded for furniture and interior finish, for the tree itself is more widely distributed than almost any other of commercial importance. The demand for the best wood, however, has always outrun the supply. Even in the Eighteenth century, when wars in Europe were frequent, so much Circassian walnut was used for gunstocks that the supply was seriously depleted. Early in the Nineteenth century the wood of 12,000 trees was used for this purpose alone. Single trees, containing choice burls of fine birdseye figures have sold for more than \$3000.

Food Value of Nuts.

Rich in nourishment, nuts are an unappreciated substitute for meat. Peanuts, for example, afford twice as much nourishment as beef steak, rice or beans, and eight times as much as potatoes.

Next in food values to the peanut, comes the chestnut, which is so starchy as to be almost a bread. In Italian kitchens, it takes the place of cereals. Chestnuts are used in soups, sauces, purees, forcemeats, entrees, and all manner of sweet dessert dishes.

Fresh almonds are exceedingly nutritious, but prove far more digestible when blanched. This is quickly done by covering the nut meats with boiling water, letting them stand three or four minutes, then rubbing off the brown skins between the thumb and forefinger. Dried, then salted in the oven, almonds make an excellent digester, a couple of them, carefully masticated, frequently relieving indigestion from other causes.

English walnuts, hickory nuts, and pecans are also high in nutritive value. The black walnut, which is stronger in flavor, is growing in favor for cakes, salads, and pickles. The pistachio seed or nut, is being imported in increasing quantities, and the little green kernels are not only used for coloring and flavoring but as digesters.

Hard to Tell.—"There were a lot of old shoes on the street when I went out this morning." "Wedding or a cat fight, do you suppose?"—Boston Transcript.

Power and the Man.

A man is measured by the power that he uses. "The Man with the Hoe"—"almost a brother to the insensible clod he stands upon"—is a type of the lowest plane of human effort. His body only is alive; his mind is dormant, says the Twentieth Century Farmer.

Continued exhausting physical exercise deadens mental activity and prevents mental development.

"Grant me but to see, and Ajax asks no more," was the cry of the blinded hero in the thick blackness of the hostile camp. That cry typifies the yearning of every man that struggles toward a higher plane of effort. Brain power indefinitely multiplies muscular power, and finally supplants it. The discovery of the use of the lever and of the inclined plane, which made the powerful screw possible, marks a new level in human achievement. The engine, the product of man's brain, doing man's work for him, touches the highest level of achievement in human labor.

Brain power emancipates man from brutalizing drudgery of mere physical toil. Brain power makes possible the cultivation of the humanities, and the art of living.

"You admit, then," inquired Judge Boulder severely, "that you stole the pig?" "I suppose I must," said the prisoner. "Very well," returned the magistrate with decision. "There has been a lot of pig stealing going on around here lately, and I am going to make an example of you or none of us will be safe."

WILL YOU PLEASE ANSWER THIS QUESTION BY POSTAL CARD?

Have you Followed my Advice.

I desire to know whether many of the readers of Green's Fruit Grower have followed my advice and have planted in their garden or elsewhere near their home what I call a hedge row of dwarf pear trees.

For years I have been telling my readers that I feel I have made a discovery of importance to every lover of fruit, which is as follows: I planted a row of dwarf pear trees through my garden, the distance being something over 100 feet. The little pear trees were planted three feet apart in this row, but there was nothing to seriously obstruct the sunshine and air on either side of this row of trees. These trees were planted nearly fifteen years ago and yet they are not crowding each other excessively in this limited space. Every year most of the trees have borne abundantly and I have given my family an abundant supply of pears from the earliest to the latest to ripen. Do you not see how easily you can have an abundant supply of different varieties of pears by planting this row closely through your garden? What I want to know is how many of you have followed my advice.

Another similar discovery I made when on building a house on a city lot I desired something to mark the boundary lines of the back yard to prevent too free access of children or animals, therefore I dug a trench on one side of the back yard where the line fence should have been, and another similar trench at the rear of this lot. In this trench I planted peach trees 12 to 18 inches apart in the row. These trees lived and thrived, having abundance of air and sunshine on both sides of the row. The trees act as a line fence but did not cost one-tenth part as much as a fence would have cost.

Now as to the results in fruit, those peach trees began to bear fruit soon after planting and continued to bear fruit abundantly. This house was leased to a family. One day I was invited in to see the many baskets of beautiful peaches which the lady had just gathered from the trees, and there were many more peaches remaining on what we may call a peach hedge. On another occasion this lady invited me into her pantry and showed me beautiful canned peaches, embracing what must have been originally several bushels of fruit, which she had in cans for winter use, all of which had grown upon these two short rows of peach trees planted closely together in a trench. The entire length of these two short rows of peaches could not have been over sixty feet. The lot was only 40 feet wide.

Later on building another house in Rochester I followed the same plan that I did in planting the peach trees but instead of peach trees planted plum trees in a trench on the east side and the south end of a small city lot. These trees when I last saw them were thriving and I do not doubt have borne many crops of fine fruit. Apple trees could be planted in this manner but the apple tree does not come into bearing so soon as peach and dwarf pears. Hardy red cherries could be planted in such rows closely and bear abundantly and be an object of great beauty about the home.

To destroy caterpillars, hang pieces of woolen rag on every tree and bush; the caterpillars will congregate on them and they are then easily caught.

Merry Christmas

WILL SOON BE HERE

And we want to help you spread the Christmas Spirit to your friends. To that end we want to send you forty-eight beautiful very high class Christmas post cards all in a beautiful holly box.

By their use you can visit all your friends at Christmas time and spread the Christmas Spirit of Good Cheer.



Now is the time to get them. Do not wait. We have them now in beautiful holly boxes and want to send your box before it is taken by some one else.

To Subscribers

Send only fifty cents in stamps or coin and we will extend your subscription a whole year from the time you have already paid for, and send you the Christmas holly box with the forty-eight beautiful Christmas and New Years' cards prepaid to your door.

To Others

If you are not a subscriber now send the order just the same. We will enter your new subscription for a whole year and make you a present of the box of beautiful Christmas cards.

Remember that a personal message of good cheer is better than a present of mere commercial value.



These beautiful cards cannot be duplicated and this offer holds good only while the cards last.

Send at once. We are sure that you will be delighted with these beautiful cards.

ADDRESS

Green's Fruit Grower Co.
ROCHESTER, N. Y.

THE LABEL OF SAFETY

Here at last is the safe engine. Insurance companies are convinced. Every precaution taken to prevent increased insurance rates. Make sure of this protection by getting the

Jacobson Engine

Every engine bears its own label showing that it has been inspected and approved by the Underwriters Laboratories Co., Inc. Plenty of reserve power. Easy starting. Material and workmanship faultless. Send for booklets.



Jacobson Machine
Mfg. Co.
Dept. H,
Waukegan, Ill.

100 Lbs. SUGAR \$1.75

—white granulated, costs \$6.00 elsewhere, with Coffee, Rice, Soap, etc., all at big saving. Sugar sample and catalog for 10 cts. postage, refunded on first order. AGENTS wanted. Easy, quick profits. Credit. Act quick. Be first. Complete outfit, Catalog, Sugar sample, etc., 15 cts. None free. Globe Ass'n, Dep't 69 Chicago. (Established 16 yrs)

Easy to Own an Engine Now.

One of the most notable things in the gasoline engine business, is the New Sales Plan adopted by Ed. H. Witte, of the Witte Iron Works Co., 2370 Oakland Ave., Kansas City, Mo. He now sells Direct from Factory to User, and has arranged for easy payments, at no advance over regular prices. The plan is devised so a WITTE engine can earn its own cost, while the user is paying for it. For 27 years Mr. Witte has done nothing but build WITTE engines. His catalogues and circulars, together with the prices he makes, show he is a master at his business. The Witte factory is one of three of the first gasoline engine factories in America, and is now the oldest and largest exclusive engine business, selling



ED. H. WITTE

only direct to the user. Mr. Witte has just brought out a very handsome, large sized circular in three color printing, the title of which is, "Own Your Hired Hand—It's Cheaper than Hiring." The text matter with the rich illustrations, show in a convincing manner that a WITTE engine, using either kerosene, gasoline, gas, naphtha, or distillate, is a competent "hand" suitable for any work that can be harnessed to a belt. The striking part of this showing is the really low prices that can be made on all sizes of these engines, from 1 1/4 to 40 horse-power, stationary, portable, skidded, or sawing styles. These factory prices mean a saving to purchasers, of anywhere from \$25.00 to \$350.00, according to the size and style of engine selected—a six horse-power stationary engine for instance, selling at \$99.35 for the complete outfit, already to run as soon as unloaded at destination. The 60 days free trial plan is also explained, in connection with the liberal five-year guaranty, which Mr. Witte makes very definite and broad. Your name and address, sent to Mr. Witte at his address, as given above, will bring to you one of these new circulars free, together with his Big Fine Catalog and Easy Payment Sales Plan.—Adv.



AGENTS:

Give \$1 stick pin and cuff link set free with every sale to introduce our line of neckwear, hosiery, etc. 4-in-one, 4-in-hand, something new; 13 colors; 5 styles. Big seller. Good profit. Joyce made \$18 in one and one-half days. Handsome leatherette pocket folder outfit free to workers. Write quick for terms and outfit.

THOMAS TIE CO.
6970 WEST ST., DAYTON, O.

\$10,000,000 A Year Wasted On Trusses

Wrong to Buy Anything For Rupture Without Getting Sixty Days Trial

A conservative estimate shows that nearly ten million dollars a year—in this country alone—is practically wasted on worthless rupture appliances—all because people trust to a mere try-on instead of making a thorough test.



Away with Leg-Strap and Spring Trusses

So far as we know, our guaranteed rupture holder is the only thing of any kind for rupture that you can get on 60 days trial—the only thing we know of soon enough to stand such a long and thorough test. It's the famous Cluette Automatic Masticating Truss—made on an absolutely new principle—has 15 patented features. Self-adjusting. Does away with the misery of wearing belts, leg-straps and springs. Guaranteed to hold at all times—including when you are working, taking a bath, etc. Has cured in case after case that seemed hopeless.

Write for Free Book of Advice.—Cloth-bound, 104 pages. Explains the dangers of such a long and thorough test. No more be allowed to fit trusses than to perform operations. Exposes the humbug—shows how old-fashioned worthless trusses are sold under false and misleading names. Tells all about the care and attention we give you. Endorsements from over 5000 people, including physicians. Write to-day—find out how you can prove every word we say by making a 60 day test without risking a penny.

Box 91, Cluette Co., 125 E. 23rd St., New York City

CURIOUS SPOILS OF YOUR AUTUMN WOODS.

Several Facts Anent The Goldenrod, Papaw, Persimmon and Other Forage of Your Autumnal Outing.

Written for Green's Fruit Grower by Felix J. Koch.

Of course you're going to take bag or basket along on that walk out into the country in the autumn! Either that or else, when you engaged the wagon that's to carry you and your friends from some rendezvous out into the hills, where the leaves are dropping and the walnuts call to gather and the mist of Indian summer fills the air, you stipulated expressly that there be box or basket in which to bring home nuts and papaws and persimmons, and that the driver reserve space under the seat for the bunches of goldenrod you would gather. Even the automobilist is willing to crowd the floor of the machine with these spoils of the autumn woods,

There's a faint, delicate fragrance that recalls the tropics; while the dark, glossy foliage, so restful to the eye, inviting, with its cool shade, in the hottest weather, has a savor of the orange groves of California. Now that Indian summer's come, the leaves change shade and stand out, prominently in the landscape.

It's when the persimmon is just ripe that it has its most delicious flavor, far and away more delicate to the taste than the highly-colored product one is apt to pick before the seeds within have matured enough to germinate.

When you eat your 'simmon, too, rest assured you're indulging in a real American product—even to the name, which we learn, the Indians used long before the Europeans had ever tasted the fruit. Over in Japan they have a persimmon, of course, but this has been so modified by cultivation that it's no where near the same. Our American persimmon, one

trudgers afield who fail to bring home with them a great bouquet of the national flower, for filling some odd vase, the winter over.

Motoring countryward in the fall again and again 'round some little country schoolhouse whose grounds are edged with goldenrod, you'll find men and boys stopping to lunch as intermission to their gathering the goldenrod. It's always pleasant for the city man to combine pleasure with profit and so men and boys go out to the fields to cut the flower, get a breath of the big outdoors, rustle the leaves, see the hazey vales, and, finally, returning sell the big bunches of the goldenrod to the florists who always find use for the same.

Sometime since a student of American wild flowers claimed for the goldenrod no less than eighty different varieties, flooding the autumn hills with their sunshine these so close alike that most folk thought they saw but one. Another species survives in England, this though not greatly different in form from our early variety so well known the United States over.

To the botanist the goldenrod is the Solidago Virga Aurea, and solidago is stated to mean "to make whole," this referring to the healing properties ascribed to the plant. In these days of artistic decorative effects, attained whatsoever be the means, the value of the goldenrod for trimming the banquet hall or salon is growing day by day. To attempt an imitation of the great banks or masses of the yellow plumes, subdued perhaps by the green of the sun ferns below, is not difficult even to the veriest tyro. Against a complimentary background those who know relate, the colors will stand out boldly and give cheer to any place, often where other flowers have failed sadly.

At the height of the season one collector tells us in the hotels, the cafes and the like as well as the homes and the flowershop windows, goldenrod is in its glory. Newport has set the style, it is used so much there, latterly though only now and this despite the fact that twenty odd years ago Mrs. Pierre Lorillard recognized its wondrous value for decoration and the like and employed it at a ball at The Breakers, then her Newport home, whole wagon loads of the flower suddenly attaining commercial value through her needs. The entire cottage which occupied the site of the Vanderbilt Breakers of today had its hallways banked with the goldenrod at that time. Goldenrod, too, was used prominently for decoration at the wedding of Gertrude Vanderbilt to Harry Payne Whitney some years since and not without good effect. While the goldenrod begins to blossom in July, it reaches zenith in October and November when the world is otherwise donning somber hues. Of the eighty varieties aforesaid native to the United States, forty-two we find are found in the northeast part of the country. Best known of them all is the Solidago Arguea, about the first to bloom. Each species however has some stated shade, some form of blossom, some cut of leaf that sets it apart. Those who are fond of puzzles, those who like to collect—be it anything from stamps to flowers—may find fascination in going forth, some standard botany in hand, trying to see how many different kinds of goldenrod they may gather just in an afternoon's walk from home.

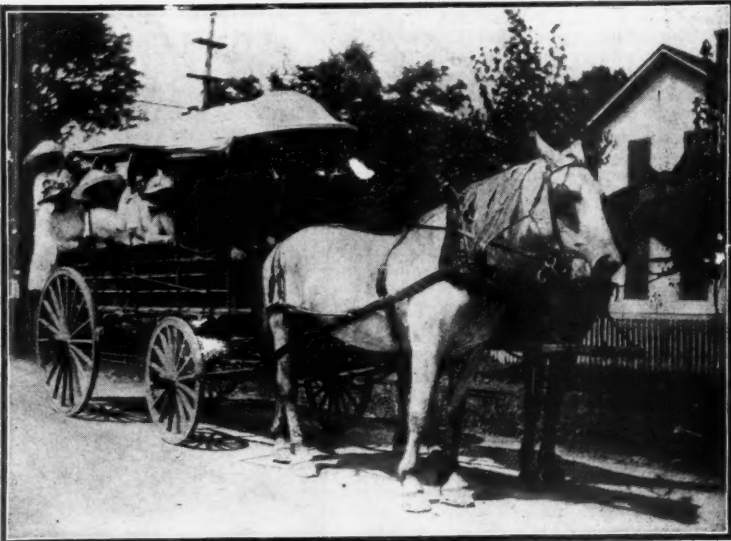
Nor are these all the spoils of the woodland. Factory girls, young schoolma'ams and the like are growing even fonder of taking wagons and going out after the commoner nuts which the woods and the fields invite to pick and yet which we so seldom any longer find on our markets. The traction too has made easier the getting countryward and boys go out with sacks to beat the trees for nuts, some to keep, some to sell, some to give away. Walnuts, beechnuts, hickories and butternuts for some reason or other are now no longer obtainable in the city groceries save by rarest chance.

People on the other hand seem to covet these the more just because they appear to have grown scarcer. Nutting time, therefore, exerts its lure to go forth and garner. The woods call in the autumn and they hold their promise of reward to those that heed. We Americans have turned countryward more and more of late years, anyhow, and when the fall gives chance at forage for such spoils as these, little wonder that we find the country sides suffering invasion from all the cities around.

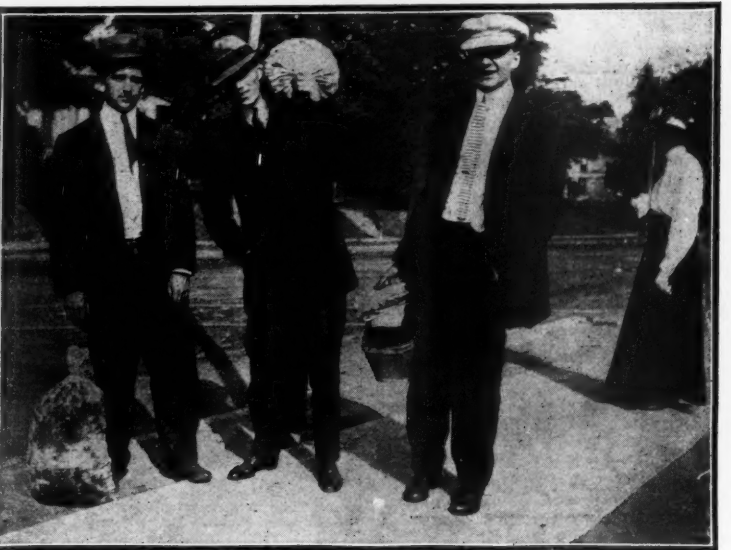
A northwesterner who was visiting some distant kinsfolk in Kentucky was impressed by the military titles of the men to whom he was introduced. Almost everybody was a "colonel." One day he was walking the street in company with a kinsman, who addressed a passing gentleman as "general."

"Why do you call him a general?" the northwesterner asked.

"Oh, just because he is nothing in particular."—Youth's Companion.



A merry lot of girls and boys ready to start out for nuts and other autumn fruits.



Returning from the nutting expedition. Who is there that does not enjoy nutting?

tit-bits that, somehow, are taboo on the markets or in the hucksters' wagons, and so never find their place in the home otherwise.

Few, indeed, the city men, therefore, whose hearts do not warm to a cluster of rich, ripe persimmons. Somehow or other when a persimmon is at its very best, ready to burst its blue-brown sides with very ripeness, it seems to be turning to decay, and hence perhaps the fruitiers could never hope to sell it. Before that, when strong and sound and round, that fruit has a taste which lingers even as does sorrow, needing to wear away, and hence would condemn it's kind to the purchaser forever. Someone has even suggested that the persimmon supplant the Apple of Sodom as the symbol of bitter disappointment, for if you ever happen to bite, unsuspecting, into a green one, even sorrows may be forgotten when memory of that taste remains.

When you're out after persimmons, though, take more than a passing glance of the shrub, while stripping it of the fruit. That bark, so rough and black, what foretaste does it give of the golden, crimson balls it's to sustain? Ever see a 'simmon-tree in bloom? 'Chances are you haven't gone to the woods so early in the year, but if ever you do, keep a weather eye out for them. Things of beauty they are, the tree thick with blossom and the flowers set in small clusters. Each separate blossom is of a green-white tint, somewhat resembling lillies-of-the-valley in both form and size.

who knows it best relates, is edible not only in its natural state, but also in the form of pie. It is quite potable in the liquid form, and in the South, in country districts persimmon beer is common. Again as an article of forage it gives a touch to the flavor of a possum roast that makes you forgive it the pucker—like that of alum—which it inflicts when not yet ripe.

When it's persimmon time again in the States, then, too, you may look for the papaw. On the sunnier sides of the hills, or in open glades of the woods, close set in rising clumps, you will find these long, greenish yellow ovals, waiting for the picker. Strange as it may seem to the layman, botanists class the fruit of the papaw as a berry, withal that this large oval tit-bit sometimes attains a length of three inches. Papaw lovers the United States over will rather resent the fact that the great Encyclopedia Britannica, a standard work among English speaking peoples the world about, says of the papaw that its soft, insipid pulp is eaten by negroes but not generally relished by others. Moreover it goes on to state that all parts of the plant have a rank smell, a fact which may or may not be true, as appreciation of odors varies, but which has little to do with the taste of the fruit particularly when eaten miles away from where it may have been gathered. Those who gather the papaw and the persimmon are sure to marvel at the glorious riot of the goldenrod, in full blossom at this season, and few the



Health Notes.

The individual who is always catching cold is the one who has always been cod-dled and kept in an artificial atmosphere.

The best treatment for a bruise is an immediate application of hot fomentations. After that witch-hazel, vinegar and hot water, or alcohol and water, put on with a bandage and often moistened.

Neuralgia will often yield to a good dose of castor oil which thoroughly cleanses the system, after local applications fail.

Fats are nerve foods as well as flesh builders. Thin nervous people should eat plenty of good butter and rich milk or cream.

A cheerful and persistent smile, says some surgeons at the Johns Hopkins hospital, is the best preventive of appendicitis.

For a burn one of the best aids is to immerse the part in kerosene for ten or fifteen minutes, if possible, or cover closely for some time with a cotton cloth dipped in the oil. The soreness will soon leave.

A good cooling lotion for perspiring feet is composed of four parts of talcum powder to one of boracic acid, mixed thoroughly and sprinkled inside the stockings.

When very tired, throw a wrap over the shoulders when sitting down to rest, as in this condition colds are taken as easily as when perspiring freely or sitting in wet clothing.

Someone says: "When you have a cold, one of the four great eliminating organs, the lungs, the skin, the bowels or the kidneys, has been loafing. Put them all to work."

A bottle of peroxide of hydrogen should be kept in the house as an anti-septic. It is a good thing to put on any eruption, such as pimples and small sores, to dry them up, and when diluted with clear water it is a good gargle for a sore throat.

To keep in perfect health and to prevent the arteries from growing brittle in middle age, you should drink two or more glasses of pure, cool water every morning before eating breakfast. Between meals a glass or two should be taken. Do not wait for thirst, but try to keep the moisture of the body at a perfect balance.

A practicing dentist says that his business is helped by the women who bite off their threads. Only professional dress-makers and seamstresses may be relied upon not to do this; all other women who make any of their own clothes are more or less addicted to it.

For Nerves.

Forget them.
Shun bargain days.
Wear loose clothes and shoes.
Don't let trifles bother you.
Never worry, encourage cheerfulness.
Eat good foods, which agree with you.
Take an afternoon rest, nap if possible.
Systematize your work, don't be too serious.
If husband forgets errands, laugh, don't scold.
Take no part in contests, go to bed early as you can.

Some Ways to Keep Young.

Keep in the sunlight; nothing beautiful or sweet grows or ripens in darkness.
Avoid fear in all its varied forms of expression. It is the greatest enemy of the human race.
Avoid excesses of all kinds; they are injurious. The long life must be a temperate, regular life.
Don't live to eat, but eat to live. Many of our ills are due to overeating, to eating the wrong things and to irregular eating.
Don't allow yourself to think on your birthday that you are a year older and so much nearer the end.
Never look on the dark side; take sunny views of everything; a sunny thought drives away the shadows.
Be a child; live simply and naturally and keep clear of entangling alliances and complications of all kinds.
Cultivate the spirit of contentment; all discontent and dissatisfaction brings age furrows prematurely to the face.

Help for the Nervous Heart.

A person who has a nervous heart must first find out what causes it to be nervous, says Youth's Companion. The condition has so many different origins that there is no single course of treatment for all cases. At the same time, some form of excess is usually at the bottom of the trouble. Whether it is excess of play or excess of work, the symptoms will be similar, and the results will be equally disastrous unless the fault is corrected. Neglected functional heart trouble often becomes an incurable organic heart trouble.

When your heart begins to show signs of irritability—when it palpitates or works irregularly or feels occasional pain—have a physician who understands the heart examine it. He can determine how serious the condition is; self-diagnosis in heart trouble of any type is simply a waste of time.

When the excess consists in a youthful over-indulgence in athletics, alcohol or tobacco, the proper treatment is evident. Relief depends on the common sense and self-control of the patient. When, however, the trouble affects the busy and aging head of a family who cannot yet afford to retire from work, it is a more difficult matter. And yet careful management and good sense can do much to help these cases, too. Those who cannot take as much rest as they ought to have, often find it possible to take enough to get on with. If they cannot go to the

Riviera or Switzerland, they can get an extra hour in bed every night, a quiet half hour after the evening meal, a tranquil and restful Sunday, and the light and nourishing diet for which their condition calls.

It is true that some cherished habits must be given up temporarily, at least. Tobacco in any form is bad for the nervous heart and tea and coffee come under the same condemnation. At the same time, those who are accustomed to tea or coffee, especially at breakfast time, often do better when they decrease their allowance gradually than when they abandon the habit abruptly.

Let the owner of a nervous heart persuade himself to humor that faithful servant. Let him give up running for trains, carrying heavy bags, and overtaxing himself in any way; by and by he will find that his heart has had the rest it needs, and is willing again to toil for him with little or no complaint.

Death Caused By Poison in Ice Cream.

By C. A. Green.

We frequently hear of many people being poisoned in various parts of this country by eating ice cream. The poison contained in some samples of ice cream is called ptomaine, the poison consisting of bacterial germs conveyed to the product by contaminated milk or cream or by the manufacture of ice cream in unclean

places where disease germs are encountered. It has been supposed that anything frozen stiff as is ice cream must of necessity be free from live germs, but such is not the case. There are germs of disease, notably the colon bacilli, which not only survive in frozen ice cream but multiply rapidly in the frozen element, and this is one of the reasons for many of the cases of ice cream poisoning. Readers of Green's Fruit Grower should be careful of whom they buy ice cream. Venders of ice cream who rove around the street with carts and sell ice cream cones, should not be patronized. Cheap ice cream should be looked upon with suspicion. Ice cream made of pure and clean milk or cream is not unwholesome and is a popular American dish, but little known in Europe at least until recent years.

The colon bacillus may come from the cow where the milking is done with unclean hands or where the cow's body is filthy. It is not safe to allow a man sick with typhoid fever, scarlet fever or small pox, or one just recovering from these diseases to milk the cows.

While it is almost impossible for man to avoid taking into his stomach germs of disease or having them accumulate in his nostrils or throat, he can, by keeping his system in a vigorous, healthy condition, make his body strong enough to throw off or dispel disease germs, which if his body is in a weak condition might cause his sickness or death.

Prices Reduced on My 1914 "Steels"

An everyday Necessity

600,000 Farmers named my "Steels"
"The World's Greatest Work-Shoe"

1914 Model better than ever—

Waterproof, lighter, stronger,
more durable, comfortable, cost
less and wear longer than any
other work-shoe.



SPECIAL CLUB OFFER

Two or More Pairs "Ruthstein's Steels" at Wholesale

I Spent \$50,000 to Make
This Special Offer Possible

I just spent \$50,000 to improve my "Steels"—for better, faster, more accurate machinery—more comfortable, practical, last patterns—increased capacity. I did this to better my service and the service of my "Steels" and to lower my price to you.

Cost of living advanced—labor advanced—the quality of my "steels" advanced—I've kept my price level for five years.

Now I'm in position to make a big concession to you—a big new proposition made possible at big expense.

This big price cut on an advancing market is unheard of—I know this as well as you do. But I have a purpose—to introduce my "Steels" to your feet.

I expect this first sale to make you a permanent customer and "booster" for my "Steels."

I'm building for the future, by giving you a big bargain now. I know this first pair will sell my "Steels" to you again and again, because they'll MAKE GOOD for you—save you \$20.00 or more every year, on shoe bills alone, to say nothing of doctor and drug bills. They mean good wear—good health too.

LIGHTNESS, COMFORT, ECONOMY, SATISFACTION, PROTECTION—a noble list of benefits. Better than "leathers" at every step.

Don't get it into your head that my "Steels" are meant only for miners or quarry men. They're not—they're a necessity—an absolute necessity—to every farmer—every dairyman—every man who "hits the grit" or tramps the furrow—every man who can't pick his steps—for mud, slush, rain, sloop, ash, sand, gravel or rocks—for barn-yard, field, road, woods or cement floors. One day's wear will prove to any man or boy the EVERLASTING USEFULNESS of my "Steels."

1,000,000 Pairs Already Sold
at Full List Prices

You've seen my advertisements for years—know me by reputation. Now, get acquainted with my "Steels." A million workers know them—wear them—have worn them for years—buy them at full price, can't get along without them.

I never before cut price on my "Steels"—never had to—don't have to now—may stop this offer any time—quick. Right now, it's my policy to slash regular "factory-to-consumer" prices to readers of this paper who order two or more pairs at once—for self and son, hired man or friend—any size—any priced shoes—a variety if you want.

I want you to try on a pair of my "Steels," at my risk, because I know once you wear my "Steels," you'll not be satisfied with "leathers"—never again. You'll want "Steels" at full price or any old price—must have them—will have them—can't get along without them—because—to the outdoor man they're PRICELESS.

See my idea? I start you at your own price—you'll buy later at mine—and be willing to pay it. You need my "Steels" in your business. Here's how it works: I ship you a pair of my "Steels"—your size—you try them on—see how comfortable and light they are—how they fit your feet—how waterproof—how they outwear 3 to 6 pairs of ordinary work shoes—how dry and cosy they keep your feet—how they correct all foot troubles—corns, bunions, chilblains, callouses and flat foot—how they protect your health—prevent colds, pneumonia, grippe, rheumatism, lumbago, sciatica and other "wet-foot" diseases—how they rest you. Then you'll swear by my "Steels" 'til the cows come home—discard sloppy, waterlogged, twisted, hardened, shapeless, unhealthy, impractical "leathers" and stick to "Steels" forever more.

Talk about wear. Guess how often my regular customers order. Only about once in two years. You know what that means—two years of wear. Here's another surprise for you—they cost less than "leathers."

You want service and you want economy. Here have both and health insurance thrown in for good measure.

NOW READ MY SPECIAL OFFER.

Special No-Risk Offer to
New Customers

I'm not asking you to BUY—I'm asking you to TRY—just try-on, at home the pair of "Steels" I'll send to you. That's all—try them, at my risk—judge for yourself. If they don't suit your purpose—fire them back—at my expense.

If they ARE all I say—if they DO all I claim—you'll WANT them—NEED them—KEEP them.

That's my proposition to you. Wholesale price on two pairs or more shipped at my risk for 10 day try-on—guaranteed to please—every pair.

I'll ship two pairs or more of my "Steels" direct to your door by parcel post, so you don't even have to go to town for them—THEY COME TO YOU. I'll fill your order the very same day it reaches me. My Racine factory alone has 5000-pair daily capacity. No wait—no delay—no trouble to get my "Steels."

You assume no risk—no obligation—you take no chance—I abide by your judgment—your decision to keep or return the shipment.

I'm asking very little of you—just sign and send the free try-on coupon, get full details of my special offer—make your decision and let me know what it is. That's all.

I don't see how you can refuse this really generous offer—if you understand it? I'm telling it to you straight—simply—honestly—making it easy for you—helping you all I can—giving you the best proposition I know how to make—trusting to your good judgment for acceptance.

Think man, think—these shoes will save your FEET—your MONEY—perhaps your LIFE. You simply CAN'T refuse to give me a full hearing—Get the proof—the free proof of all I have said—the fulfillment of every promise I have made.

Why should you hesitate? I wonder you have read this far without signing and sending the coupon. How can you keep from writing to me when I am so earnest—so sincere in my appeal to your intelligence?

I want to send you this book free



It describes my "Steels"—tells why they are lighter, better, more comfortable, safe and economical for you than any other work-shoe—why they outwear 3 to 6 pairs of the best all-leather shoes—why "Ruthstein's Steels" save your feet, your health, your money—why and how and what you gain by buying direct from the maker—what my Special Club Offer means to you.



SEND POSTAL OR THIS COUPON

N. M. RUTHSTEIN, Dept. 32 Racine, Wis.
Dear Sir: Please send me postpaid, your free book "The Sole of Steel," and tell me how I can buy your "Steels" at Wholesale Prices.

NAME _____
STREET _____
TOWN _____
STATE _____
R. F. D. NO. _____

N. M. RUTHSTEIN, "THE STEEL SHOE MAN" DEPT. 32 RACINE, WIS

Also Manufacturer of the World Famous "Scientific Shoes" for Dress and General Wear

ELECTRIC Steel Wheels Save YOUR Back

Don't rut roads or fields. Send today for free illustrated catalog of wheels and wagons.
Electric Wheel Co., 24 Elm St., Quincy, Ill.



Own A Florida Home

Thousands of persons are dreaming and planning to own a little farm some day. Are you one of them? A home with a grove, truck farm, and poultry yard in Florida means independence. Success is easier than failure. Let us help you locate right. Illustrated booklets and "Facts about Florida," FREE.

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J. E. HARRIS, V. Pres., or 1805 LANSON, Northwestern
Room 104 City Bldg., Agent, Room 104 100 West
St. Augustine, Fla. Adams Street, Chicago, Ill.

HOUSEKEEPER AND COOK WANTED At C. A. Green's Residence Rochester, N. Y.

I am willing to pay the highest wages for a competent and good natured cook at my Rochester, N. Y., residence, which is in the suburbs of Rochester on the street car line. There are only three in the family. No washing or ironing. Please reply, giving particulars as to what experience you have had and what you can do, and give testimonials if possible. Under certain circumstances I would pay the car fare to this city. C. A. Green, Editor of Green's Fruit Grower, Rochester, N. Y.

Stop Using a Truss



STUART'S PLAPAP-PADS are different from the truss, being medicine applicators made self-adhesive purpose to hold the flabby muscles securely in place. No straps, buckles or spring attached—cannot slip, so cannot chafe or press against the pubic bone. Thousands have successfully treated themselves at home without hindrance from work—most obstinate cases conquered.

Soft as velvet—easy to apply—inexpensive. Awarded Gold Medal and Grand Prix. Process of recovery is natural, so afterwards no further use for trusses. We prove it by sending Trial of Plapap absolutely FREE. Write us TODAY. Address, Plapap Laboratories, Block 1115, St. Louis, Mo.

ELECTRIC HOME AND FARM LIGHTING PLANT
CARRIAGE, BICYCLE, FISHING, FLAS
AND AUTO LIGHTS, Fans, Engines, Dynamos, Belts, Bells, Etc.
Cat. No. OHIO ELECTRIC WORKS, Cleveland, O.

If you will, you can

be a successful farmer
in the San Joaquin
Valley, California

Here forty thousand families have established homes and turned raw land, which cost them \$100 an acre or less, into blossoming orchards, blooming alfalfa and stock farms, for some of which, men, who know conditions, are glad to pay \$500 an acre and upward.

But there still is ample room and abundant opportunity for one hundred thousand families to make a home and a substantial fortune—from a modest beginning—supplying the ever-increasing demand for the products of California soil.

I want to get into correspondence with every man that reads this advertisement, who has a desire to own a farm on the Pacific coast. I would appreciate it if you will tell me in your first letter just what kind of a place you desire—whether a fruit ranch, a vineyard, an intensively cultivated garden, an alfalfa and stock ranch, a dairy or a poultry farm.

We are in possession of a large amount of information that will be of the utmost value to you in deciding where to locate. We can tell you something of land values, terms, market conditions, taxes, cost of cultivation, cost of water and the hundreds of other things which you must know and which would take you weeks and months to get for yourself.

After you have found the spot, we will send to you one of our expert agriculturists, a man who knows local conditions and can intelligently advise you how to lay out your place and how to avoid the pitfalls the stranger in a new country is likely to encounter. All this service is free. It is the Santa Fe way of insuring the home-maker as far as possible against failure.

The railroad has no land to sell. Its only chance of profit is in the continued success and prosperity of the people it serves.

What the San Joaquin Valley is, and what others are doing here, is told in two books, which are free and are yours for the asking. Then, if you are interested, we want you to ask further questions—we are eager to answer them.

C. L. Seagraves, General Colonization Agent
Atchison, Topeka & Santa Fe Railway
2241 Railway Exchange, Chicago

Apple Season.

Getting near to apple-time,
Season best of all the year!
So I think at least, for I'm
One who holds that fruit most dear;
Weather's snappy keen and clear,
Full of vim and glow and zest,
Makes you want to shout and cheer,
Makes you feel a mortal bust,
That's the weather—apple-time.
And the apples—juicy, prime,
With their cheeks the rosiest—
They'd stir anyone to rhyme!
Then it does me good to think
How this royal food and drink
Brings return none can compute
To the grower of the fruit;
Bring unto the farmer's hand
Streams of gold from every land;
Wherefore let the joy-bells chime,
As I give many thanks that I'm
Getting close to apple-time!
Fireside & Farm.

Fall and Winter Care of Trees and Plants.

THE ORCHARD.

The old orchard—that is, trees twelve to fifteen years old and older, and already in bearing—will be benefited by heavy applications of stable-litter or other fertilizer. To the extent that stable-litter can be procured, we have been in the habit of using about five hundred pounds for each tree of the age of fifteen years and upward. This litter—distributed about the tree, never in contact with the trunk—increases the stock of humus in the soil and lessens the winter evaporation and the injury from dry-freezing, says E. F. Stephens in The National Horticulturist.

In the last two years we have hauled in some three million pounds of stable litter or manure from the town stables and stock-yards. Careful observation for thirty years indicates a benefit of \$1.00 per load for each of the first two years following the application, and that the beneficial effect is not wholly lost during a period of eight years. We prefer to use stable-litter rather than straw to the extent that we can secure the same. An application of three inches of stable-litter is better than ten or twelve inches of straw.

Where stable-litter can not be had in sufficient quantities to mulch the row to a width of eight or ten feet, straw-stacks may be used to excellent advantage. The hauling of stable-litter and straw is suitable work for the months of December and January. Where the application of litter and straw is confined to the width of eight or ten feet and the remaining portion of the ground between the rows kept under annual cultivation, the roots of the trees are not brought to the surface as would be the case if the entire surface of the orchard was heavily mulched and this mulch allowed to remain on year after year.

Rabbits.—Rabbits usually do little harm to an orchard after it has attained the age of eight or ten years, but orchards recently planted, and those up to the age of perhaps eight years, should receive protection. In our branch orchards we have used about twenty-five thousand wooden veneers; these veneers, costing \$5.00 per thousand, can be tied about the young trees, and form a fair protection against rabbits during the first three or four years after planting. If the veneers are of excellent quality they may perhaps last four years.

Pruning.—While the commercial orchardist will commence work during the sunny days of December, because he has so many trees that it will take the whole winter to prune his orchard, yet the farmer or planter who has only a family orchard should defer pruning until March. The reason therefore is that if pruning is done just before active circulation of sap starts in the spring, the cut surface dries and checks less and the wound heals over more quickly.

The cherry tree requires very little pruning. The cherry is more sensitive to the loss of wood or the cutting away of any portion of its top than other varieties of fruit trees, and rarely requires more pruning than to remove the branches which interfere with each other by crossing.

Plum trees require comparatively little pruning. In the case of young trees, shorten in the strongest shoots which outgrow the others to the extent of unbalancing the form and symmetry of the tree.

THE VINEYARD.

While the grape vine is reasonably hardy yet the aridity of our winters is such that there is a lessened evaporation and a stronger and more vigorous vine if in our trying climate it can receive some winter protection. Therefore, we have found it well to trim our vineyards each autumn. The fruit of next year is formed on the new wood of the present season's growth. The object of pruning is to shorten the new growth, leaving approximately the amount of fruiting-wood which the vine can safely carry. It will be found wise to shorten the laterals to three, four, or five buds, depending on the varieties, and, to some extent, on the age and vigor of the vine. The buds left on the laterals develop the next season's fruit. The main canes are shortened to suitable

length, depending also on the age and vigor of the vine.

After pruning, we cut the vines loose from the trellis, drop them on the ground, put two or three forkfuls of straw over each vine, and over that place a sufficient amount of soil to keep the straw from blowing away.

We would figure the expenditure of three cents per vine as being sufficient for pruning, hauling the straw, and covering and protecting the vineyards for winter.

MULCHING THE SMALL-FRUIT PLANTATION.

Currants, gooseberries, raspberries and blackberries should be heavily mulched before winter in Nebraska. Stable-litter is usually the most convenient for mulching currants and gooseberries. For many years we have used straw in the raspberry and blackberry plantations. In these plantations we allow the straw to remain on the rows the entire season, with the result that it checks the growth of weeds and retains the moisture for the benefit of the plantation. Since adopting this method, we have never failed to secure a crop of fruit. About the time the ground commences to freeze, the strawberry plantation should be thoroughly covered with old hay. Why? Because old hay is free from weed-seed, (not so here editor). A covering of an inch is sufficient. In very windy districts it is sometimes necessary to confine this covering by occasional weights, lest it should be blown off by high winds; but after it is matted down it usually sticks the winter through. We have often-times used stable-litter—preferably litter from stables where prairie hay was fed. It is not wise to use litter from stables where clover is fed, since it is liable to result in a considerable amount of clover springing up within the plantation. Failing to get either hay or stable-litter, use straw, selecting that which is as free as possible from weed seeds.

HOME GROUNDS AND ORNAMENTAL SHRUBBERY.

At some seasons of the year it is not difficult to collect a great quantity of leaves. Leaves have been blown into ditches and sheltered places and can be gathered very rapidly. They will be found very useful as a covering about ornamental shrubbery, roses and bulbs. Leaves are one of nature's own and best protections.

A heavy mulch of leaves or fine litter will be found a great protection to the root system of ornamental plants. This soil-cover lessens the soil evaporation and the danger that the ground will freeze dry during the winter.

Roses.—Tea-roses and half-hardy roses may be protected by first making a mound of earth, sod, or other material, over which to bend the rosebush. Florists usually cover this with soil. In many places sods can be procured, and a covering of them will not blow away.

Tea-roses may also be cut back half, leaving them perhaps twelve to eighteen inches in height. They may then be boxed in and covered with leaves, or fine chaffy straw, or old hay. With this amount of protection they usually winter safely.

A Good Idea.

Did you ever get out your screens in the spring and say to yourself, "I wonder what window this is for" or "This screen doesn't seem to fit." You can avoid all that trouble by labeling your screens as you put them away this fall. You can get numbered brass tacks at any hardware store and by buying a double set you can number both screen and window sill so that there will be no doubt as to where each and every screen belongs.

Bees Did the Pollinating.

It has been a matter of doubt until recently as to just what agencies were responsible for cross-pollination in apple orchards. It was thought that the wind was a factor as well as the honey bees and other insects. It has been proven, however, that the wind has very little to do in aiding cross-pollination, and that honey bees, wild bees and other insects are very necessary for the transference of pollen.

To determine the importance of the honey bee and other insects as factors in cross-pollination, an experiment was carried on by the Kansas Experiment Station under the direction of James W. McCulloch, assistant entomologist. Wind was not considered in the test, because it was found that wherever apples were grown far from an apiary only a small amount of fruit was grown.

It was found that tame bees were the predominating insects visiting the flowers. They visited the trees from early morning until sundown. Cloudy or windy weather seemed to reduce their number and they did not begin flying until after the dew had left the trees.

J. M. Fairchild, a farmer in Berwick, Pennsylvania, kept count of the distance he traveled during his last plowing and finds that he traveled 276 miles on his forty-acre farm.

White-Fleshed or Yellow-Fleshed Peaches.

Of some peach blossoms the calyx is yellow within. In others the inside of the calyx cup is light green. It has just been learned at the Geneva, N. Y., experiment station that these characters are correlated with the color of the fruit produced. Trees bearing flowers with the yellow lining in the calyx produce yellow-fleshed peaches; while those bearing flowers whose calices are green within, produce white-fleshed fruit. The same correlation holds true also in nectarines. In reporting this interesting fact Hedrick says that he observed it in two trees each of 307 varieties of peaches and forty-seven varieties of nectarines. Of the former, 145 varieties had the calyx green within and bore white-fleshed fruit, 162 had calices yellow within and bore yellow-fleshed fruit. Of the nectarines the white and green correlation was found in thirty-six and the yellow in eleven varieties.

Handling Tender Varieties of Apples in Canada.

Picking and packing apples in the right way is a science. Ignorance in a large measure accounts for the serious loss that results from off condition of apples on arrival, in transit or in storage, says Rev. Father Leopold, La Trappe, Que., President Quebec Province Fruit Growers' Association.

When should we begin picking? As a general rule the apple is ready to pick when the seeds turn brown and the stem separates with comparative ease from the spur, but this rule is not definite. A man must know from the general appearance of the apple when it is ready to pick, and this he can only learn from experience. In a way the color is the best guide. For instance, in the case of Wealthy, Fameuse and McIntosh apples the color must be a mature one. Duchess may be picked before it reaches its full color, if we intend to export it. But even in this case I would not recommend at all picking Duchess too much on the green side.

An apple is generally ready to pick when it is well ripe. This does not mean that the apple should be ripe enough to be eaten, but ripe enough to be shipped, keep well, and have a good taste. To pick apples at this stage is very important. As all apples on a tree do not mature at the same time, like in the case of Duchess, we generally make two or three pickings.

AVOID OVER-RIPENESS.

With red apples there is a growing tendency on the part of some fruit growers on account of the beauty of a brilliant red color, to allow apples to hang too long on the tree. Disappointment is many times the result of such a line of conduct. Last fall many growers were just glowing over the nice weather we had, when there came a big wind storm that made wind-falls of half of their crop of Fameuse apples. But this is only one side of the matter.

An apple that is allowed to remain too long on the tree is beautiful in color, tempting to taste, and as far as casual observation goes is in perfect condition. This is what fools many a grower. Such apples are neither in a fit condition to carry far or to hold up in cold storage. Inability to judge the proper maturity for picking brings back many complaints from dealers. One year especially, after a very dry and warm summer, we left our McIntosh and Fameuse too long on our trees, and the falling down in our cold storage plant was very noticeable. An apple will keep just so long under perfect conditions, and we should endeavor to know just when to pick at least the two best varieties that we have in our Province of Quebec—the McIntosh and Fameuse.

Apples Bring \$300 an Acre.

George Foster Kent of Troy, Kas., will clear over \$1,500 this year from five acres of Jonathan apples, or 180 trees. About three years ago he bought a neglected and run-down orchard that adjoined Troy on the north. Neighbors believed he had made a bad deal, but he set about learning the orchard business, and trimmed, sprayed and intelligently cared for his orchard.

Kent sold his Jonathans to Gridley, Maxon & Co. of Chicago, for \$3.25 a barrel. They furnish the barrels and do the packing and he pays for the picking and hauling. There will be about seven hundred barrels from the 180 trees, not counting the cull apples, which are expected to pay for the picking and hauling.

Mr. Kent also has about 1,200 Ben Davis apple trees. He sold his Ben Davis apples Tuesday to Stacy Brothers of Lincoln for \$2.25 a barrel, and they furnish the barrels and pack the apples.—Kansas City Star.

Poor Fruit Season in England.

According to consular reports, there will be a greater scarcity of fruit in England this season than at any other time in the past forty years. Lack of rain and other unfavorable weather conditions and the prevalence of the black blight are given as the causes of the shortage.

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AUNT HANNAH'S REPLIES

Same as You.

Written for Green's Fruit Grower by
O. C. Langfield.

If your luck is out at courting, if you've looked too long on wine,
Do not sit and nurse the source of your anguish,
For the sun will rise tomorrow and the skies be just as blue,
And you'll find that other fellows have their troubles same as you.

There's a gun for you to carry; there's an oar for you to pull;
There's a saddle and a stock whip, and the earth is bountiful;
There's a corner for you somewhere; there's another girl to woo,
And you'll meet a mate out yonder, who has suffered same as you.

Though your aching heart be empty, and your pockets much the same,
Though the dice of fate are loaded, be a man and play the game,
There is something left to live for, to your own strong soul be true,
And we'll take your hand and grip it who have battled same as you.

You may never back the winner, you may never win the maid;
You may never find a nugget, make a fortune out of trade;
But you'll always find your manhood, if you keep the fact in view,
That some other chaps are trying to be honest same as you.

When they come to add up figures and to total you and me,
When the game of life is over and all things as nothing be,
It may chance—who knoweth brother—that the old beliefs were true,
And his voice across the shadow shall re-echo through and through:
"Peace be with ye, Sons of Sorrow, I have suffered same as you."

A Discouraged Woman.

Dear Aunt Hannah:—I am discouraged and desperate. I come to you for advice. It seems as though my life is made up of the doing of disagreeable things. I am compelled to sacrifice my own comfort continually for the comfort of other people and I am getting tired of this kind of work. I have to entertain those whom I care nothing about, go to entertainers in which I am not interested, go out riding when I had rather remain at home and take a nap.

I have considerable property. In the town where I live I am considered a rich woman. Instead of this wealth being a blessing to me it is almost a curse, for there are people on every side who for one reason or another want a portion of this money of mine or desire to borrow it, which is about the same thing. It is only of recent years that I have known how many calls there are upon people who are considered rich. The world seems to be full of enthusiasts who want help for charitable work, church work, asylums, hospitals, prevention of cruelty to animals, industrial enterprises for the betterment of mankind, relief for people in prison, doors of hope for fallen women, rescue missions, Y. M. C. A's, Women's Christian Associations, and numerous other affairs, to say nothing of individuals who are constantly clamoring for loans or gifts, and book agents and salesmen of every kind, name and nature, who are constantly demanding interviews with me and almost forcing themselves upon my attention.

Having led a life of self-sacrifice until I am grey haired, first sacrificing myself for my husband's comfort, (he is now deceased), and later for the comfort of my children, and then for the welfare of the community at large, I have become weary of well-doing and have decided to start out in a new life of frivolity, social deception, lying if necessary, to paint and powder, wear false hair and dandified dress. I am sure that I shall shock my children and the little contracted, narrow, mild people where I live, but I shall confine my dissipation largely to distant cities where I have friends who will sympathize with my changed views and applaud them. What can you say to me under such circumstances as these?

Aunt Hannah's Reply: There are hundreds of thousands of gone like you in this world, who have gone through life doing good, thinking little of their own comfort or pleasure, and of whom much is expected by the community and often but little given in return by the community. The fact is that those who do benevolent work, Christian work in connection with churches and elsewhere, should not expect direct reward or payment similar to the good given. The reward of those who do good work is in the consciousness that they have been able to be helpful.

The history of the world teaches that those who have done the most good have suffered the most, and in many instances they have suffered martyrdom. This is what occurred to Christ and the most of his disciples and to many who have succeeded them, who have accomplished the greatest work for Christianity and

for the upbuilding of morality and religion throughout the world.

My suspicion is that you have overworked and that your nerves are distressing you, or possibly it has occurred to you that since you have but one life to live you might marry again under favorable circumstances. Your condition is so abnormal and so contrary to that of most people who have been engaged in good work that it leads me to these conclusions.

I am satisfied that if you attempt the life you look forward to, that is the remarkable change in your attitude, in your dress, in your manner, you will find it very distasteful and you will be glad to return to your simple ways and to your life of helpfulness to others.

Familiar Quotations.

By Oscar S. Caplan.

1. Even if thou art rich in some things, thou art poor in others.
2. No really great man ever thought himself so.
3. Humanity can not be degraded.
4. Say just what you think and mean.
5. Duty is the path that all may tread.
6. All truths are not always to be told.
7. Good humor makes all things tolerable.
8. Experience is the best schoolmaster.
9. Virtue is bold.
10. Goodness is never fearful.—O. S. C.

Not many days since, the Chicago Tribune asked the clergymen in that great city to compile what they considered the ten wisest sayings of Solomon. They voted for the following, in the order named:

He that is slow to anger is better than the mighty; and he that ruleth his spirit than he that taketh a city.—Proverbs, vi, 32.

Go to the ant, thou sluggard; consider her ways, and be wise.—Proverbs, vi, 6. Wine is a mocker, strong drink is raging; and whosoever is deceived thereby is not wise.—Proverbs, xx, 1.

A soft answer turneth away wrath; but grievous words stir up anger.—Proverbs, xv, 1.

There are three things which are too wonderful for me, yea four; which I know not: The way of an eagle in the air; the way of a serpent upon a rock; the way of a ship in the midst of the sea; and the way of a man with a maid.—Proverbs, xxx, 18, 19.

Train up a child in the way he should go; and when he is old, he will not depart from it.—Proverbs, xxii, 6.

A good name is rather to be chosen than great riches, and loving favor rather than silver and gold.—Proverbs, xx, 1.

The fear of the Lord is the beginning of knowledge; but fools despise wisdom and instructions.—Proverbs, i, 7.

Righteousness exalteth a nation; but sin is a reproach to any people.—Proverbs, xiv, 34.

Trust in the Lord with all thine heart; and lean not unto thine own understanding.—Proverbs, iii, 5.

Counties in Kansas Without Water.

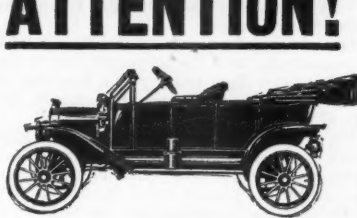
In that country there are practically no streams. There are counties, blocks of several of them in one section, where there is not a drop of water flowing above ground. There is water in the wells for the people and the stock, but the little animals do not get it except here and there where it is spilled or left in troughs, and the absolute suffering of the small animals in that section must of necessity be intense. The loss of game animals will be large, and it is not improbable that the same will apply to the vermin as well, though reptiles do not need water and come to the streams more to follow the little animals they prey upon.

Birds flying in large numbers from the hills to the streams may be seen any late afternoon or early evening. It is early for them to collect in large numbers, but a thousand together is not a rare or unusual sight this summer. Sometimes they come for miles. They are not like the little four-footed animals that move their headquarters when conditions require them to search for food or drink elsewhere because they can travel great distances rapidly and at no great inconvenience. So the distribution of the smaller birds will not be affected. But the quail are likely to stay around their new headquarters and many perish.

There are not many coyotes in Kansas, but what there are have been affected by this general search for water. Along the rivers their cries may be heard every night. The food they seek has come to the water and they, too, are influenced by the same causes. Another Noah would not have much trouble collecting the Kansas contribution to the animal life of the ark, but with the ground dry fifteen feet down and all the well diggers busy knocking the bottoms out of existing wells it does not seem possible that there is enough water in the world for a repetition of Noah's voyage.

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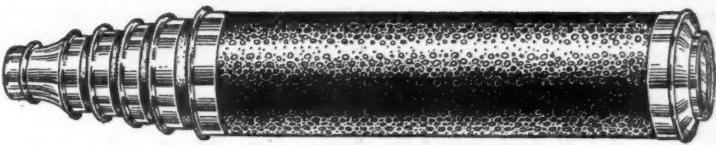
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The Awakening of Richard Hendry

Written for Green's Fruit Grower by
Louise J. Starkweather.

Richard Hendry was ploughing in the west field when he heard the cheery "Honk, honk, honk," of an automobile horn. Looking in the direction of the sound, he saw some waving hands and fluttering veils. Then the car turned in at his own gate.

"Wonder who that is?" He strained his eyes a little and his imagination a good deal, but he was too far away to recognize anyone.

"Looks like Henderson, but I didn't suppose he would think of indulging in an automobile. His farm isn't paid for yet, but that's just the kind that buy machines now-a-days. I suppose I ought to go and see." But almost while he was talking to himself the car started again and, in a moment sped down the road and out of sight.

Although a man is not supposed to be a creature of curiosity, yet Hendry could not settle himself to his work again. In disgust at his restlessness at last he took his horse to the stable and himself to the house.

A strange stillness seemed to pervade the very doorstep, as he approached and there was no answer to his cheery "who-o-o." He hurried through the door—from the kitchen to the dining room and there he found a hastily written note.

"I'm going to town with the Hendersons. Daisy wants to catch a train so they're in a rush."

The scrawl was evidently unfinished and Dick tried to finish it in his mind. "They'll be back in a little while—wonder what the misses has planned for dinner."

He went into the kitchen, stirred up the sleeping fire and looked about him. When he had been in camp he had done enough cooking not to be disturbed by the prospect of preparing a meal himself, but the loneliness of the place seemed to fall upon him with a sudden sickening force.

How much his wife's presence meant to him he had hardly realized until he was suddenly deprived of it. Such a cheery,

chatty little lady as she was. The room seemed very empty.

He moved from the kitchen to the dining room, and the sound of his heels on the bare floor made him shudder a little. Suppose—suppose he should be left alone—Marion was not very well—

He prepared dinner with this fear like a pin prick troubling him. Then he sat down to wait for Marion. The minutes slipped by and passed into hours. "Wonder if Henderson is dining her at the Alta. I'm too hungry to wait any longer."

There was a little annoyance in his tone and he turned from the window, where he had been watching, toward the kitchen.

The dinner that was soon ready he ate with little relish and after clearing it away, he started for the stable. Once there, he worked around a little, stopping every few minutes to look down the road.

"Perhaps Marion wanted to do some shopping—perhaps—" various surmises drifted through his mind as the afternoon wore on and Marion did not return.

His accustomed tasks took up enough of his time and attention so that he was not actually worried about his wife's absence until the dusk began to gather and the quiet of night was settling over the valley below and blotting out the distant hills. Then he went into the house and lighted the lamps. He put the brightest and best near the window of Marion's den and sitting down, tried to occupy his attention with reading.

He hardly knew whether it was more or less lonely to sit there where he and Marion spent so much time together, but finally concluded he was more lonely and tried the living room.

"Perhaps a dish of crackers and milk will fill up the time as well as myself." He laughed a little at his feeble joke. A few minutes later he strolled back to the den.

"Guess I'll try a magazine," he was still communing with himself. On a table near the window there was a goodly pile of some that he had never noticed before. The covers were certainly attractive. It was one of those periodicals devoted to the home and home making."

I suppose Marion reads these and that's why she knows how to do it." He said, smiling a little as he opened a copy and studied the contents.

"Jane—A Serial Story—The Building of Furniture—A Mission Girl—Letters from some farmers' wives—"

"Heigho, wonder what they have to say for themselves?"

He turned quickly to the page indicated. That his wife belonged to that class who were discussing their difficulties and—as he learned on reading further—their unhappiness, made him especially interested, and he took the magazine and seated himself in his Morris chair.

For half an hour he read with ever increasing interest and surprise. There were complaints about the loneliness of their lives, but these did not appeal to him greatly for he and Marion had not been married long enough to care over much about other peoples' society. They had been somewhat bored with the many invitations they had received, and they had also become rather tired of the numerous guests who were constantly hovering round their threshold.

However the matter of loneliness was not the only one to trouble these people. The question of work—or rather overwork—was a vital matter.

But, as he read, Richard thought complacently of their new vacuum cleaner that he and Marion had such fun in using; of their bread mixer; their fireless cooker; and their latest acquirement—the dishwasher, which was warranted to make life worth living. So, on the whole he felt that Marion could have little in common with the women who were writing to this department.

Suddenly, however, his eye fell on a letter, and especially on one sentence in the letter.

"When I asked him for money, he gave me ten dollars to buy things for the little one who was coming—ten dollars—when the blankets for his horses cost five." Hendry read the paragraph a second time—then he looked at the signature. It was there, very plainly printed, M. H. With a strange feeling at his heart he turned to the beginning of the letter and read it through.

It was no doubt the story of Marion's married life as seen from her standpoint—the story of numerous guests, little variety of occupation, few amusements, and, above all, of the lack of a personal purse, the unpleasant necessity of asking for every penny and then to have it given grudgingly—all this Richard Hendry read in the letter signed M. H., the initials of his own wife, Marion Hendry.

Could it be possible that she felt in this way? He remembered the day not long ago when she had asked for money. They were going to town and she had told him a little shyly of her hopes that soon there would be another member of their household. His joy could not be expressed in words and so he had held her close for a few moments in the very chair in which he was now sitting.

Then she had spoken of the beginning of the baby's wardrobe and he had pulled out a ten dollar bill. To be sure when he handed her the bill he had laughingly declared that there was not much more where that came from, but he supposed she knew it was a joking reference to the fact that he did not think it safe to keep much money in a farm house, even if there was a valiant dog to do battle with all tramps who ventured near.

He wondered if Marion really believed he gave her the money grudgingly. Why, great Caesar's ghost, he thought she knew that his bank book as well as his heart was hers. If he had not said so, he meant it.

He turned to the article again. "One of the things a bride hates above all things is to ask her husband for money, and she has a perfect right to use heroic measures to awaken in him an understanding of her feelings."

"Heroic measures," Richard repeated the words again and again. "Heroic measures!" Could it be possible that—a sudden thought made his heart stand still for an instant. Could it be possible that Marion was using heroic measures now. Had he failed so utterly to make her understand that, though he often blundered, he wanted to make her happy.

She had had rather a sad girlhood and yet she had kept so cheery and hopeful and Hendry had vowed to himself that she should not lose this hope and cheer through fault of his.

And here at the very beginning he had failed. What should he do? He sat for a few moments in anxious thought. Then his anxiety and the stillness became unbearable.

He must do something, but before he decided what, the silence was broken by the swift whirr of automobile wheels and a cheery "Hello, there!" It was Henderson's voice and at the sound Hendry sprang from his chair and hurried out of doors.

"Awful sorry, old man. I didn't mean to be gone so long, but we lost the train this morning and there wasn't another

till five o'clock. Then we got a puncture so I thought we might as well have supper while we were waiting. Mrs. Hendry will fill in the details and I'll be getting home to the kiddies."

As Marion sprang lightly into her husband's outstretched arms, the man in the car called a quick good night and whirled off into the darkness.

Richard felt a great weight lifted from his heart. If Marion intended to try "heroic measures" she had not yet begun and he must forestall any such attempt. "You're sure you're all right?" The question was an anxious one.

"Yes, I'm sure," Marion laughed as she lifted her lips to her husband. The kiss that he gave her was a very tender one, but she noticed a little constraint in his manner. When they had reached the well lighted den, she looked at him earnestly.

"What is the matter, Dick, has anything gone wrong?" she was tugging at her automobile veil.

"No, of course not, dearie. What made you ask?" He tried his hand at the veil, but only succeeded in tying the knot a little tighter.

"Oh, you big blundering boy!" she laughed.

"Yes, that's just what I am—a big blundering boy, but I didn't mean to be." He was speaking so earnestly that Marion stopped and looked at him.

"Something has gone wrong. Tell me—please."

"Why it was about the money—your asking for it, you know."

"No, I don't know. What do you mean?"

"About your not wanting to ask for it. I'm sorry you had to and I am going to fix it different."

Hendry spoke rapidly, while his wife still looked at him uncomprehendingly.

"I'm sure I do not understand what you are talking about, Dick. I've only asked you for money once. You remember the day—" she flushed a little as he nodded, smiling down into her upraised eyes.

"The first time was a little hard, but I suppose I'll get used to it; most women do."

"But you know what you wrote to The Homemaker about it."

"What I wrote to the Home Maker?"

For answer Dick strode to the table and brought back the magazine.

"Yes, I found it here today. It knocked me out a bit at first to find I'd failed in one of the essentials to complete matrimonial happiness."

"Let me see the magazine."

Marion Hendry looked at it a moment and then a gay little laugh came from her lips.

"O, Dickey, dear—you goose!" She laughed again merrily. "Why this magazine was published a year ago, before my initials were M. H. at all."

"The dickens it was!" Richard seized the book and studied the date. Then he looked at his wife somewhat quizzically.

"Tell me, honest, little girl, did you feel like that woman when you asked me for money?"

Marion Hendry waited a moment and then she answered thoughtfully. "No, Dick, I don't believe I felt exactly like the woman who wrote that letter, for I did not think for an instant that you gave me the money grudgingly; but, honest now," she smiled into the eyes that were watching her so seriously, "do you think I ought to ask you for money any more than you should ask me? It's all ours, isn't it?"

"Yes, you are right; it is all ours and we will go to town tomorrow and fix up the bank books so that you can draw the checks just as well as myself."

"But I don't believe I know how—"

"Great Scott, well it's high time you did then, and," a tender light came into his eyes, "there will be more than ten dollars for the things you want for my son and heir."

"For your little daughter, you mean," she corrected, looking mischievously into the eyes of the awakened Richard Hendry.

CLASSIFY MUSHROOMS AS VEGETABLE MEAT.

But Let Him Who Lacks Knowledge Beware of Culling Them—Nourishment Uncertain.

The "Journal of American Medical Association" says:

There are in this country more than 100 edible species of mushrooms. The popular distinction between mushroom and toadstool is one of name only. Many of the supposedly inferior specimens have proved on careful examination to be harmless, whereas some of them which bear an extremely close family resemblance to favored articles of diet are the carriers of danger in the form of exceedingly powerful poisons.

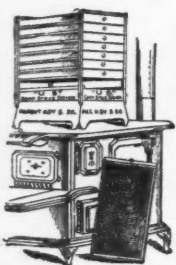
Let him, therefore, who lacks the training requisite for the unfailing detection and identification of species carefully refrain from excursions into a field of uncertainty so fraught with danger.

Green's Nursery Co. Service Department

Offers Everything Needed for Planting,
Growing and Marketing Fruit, Including

Sprayers Fruit Parers Fruit Dryers Snagging Shears Seeders Garden Tools
Spray Supplies Slicers Fruit Presses Grafting Tools Weeders Fruit Ladders
Baskets Bleachers Pruning Saws Grafting Wax Cultivators Tree Protectors
Barrel Headers Evaporators Pruning Hooks Planters Horse Muzzles

The Home Evaporator

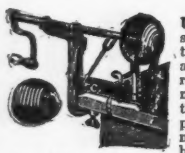


Thoroughly tested and approved. Latest, cheapest, best. Can be used on any stove, dries any fruit.

The price of this Drier is \$6. Our Special Reduced Price, Only \$4.75.

A BARGAIN. If ordered at once Green's apple parer, corer and slicer with the Home Evaporator, all for \$5.50.

Send for circulars describing larger Evaporators, Parers, etc.



No. 1, for Home Use—Pars, cores and slices the fruit, and then, pushing off apple and core separately, is ready to repeat. This machine stands beyond the reach of all competitors. There is nothing about it to break or get out of order, while the wear is so slight as to make it almost everlasting. Can be used to pare without coring or slicing. Weight, packed, 3 lbs.

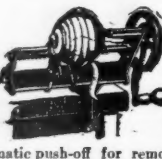
Price No. 1, complete, only 95c.

Sensible Fruit and Cider Press



A well made and handsome Press for making cider, wines, jellies, syrups, etc.

Made with special reference to strength, and guaranteed against breakage under any fair usage. All iron and steel, stronger and better than the old wooden press. It has double curbs. Price 4 quart curbs, weight 30 pounds, \$3.50. Price, 10 quart curbs, weight 40 pounds, \$4.95.



No. 2, for Home or Dry House is larger than No. 1 and faster and may be used for pears and quinces. It has a steel feed screw, and fastens to the table at both ends. Parings fall clear of the working parts. Has automatic push-off for removing the core. Pars, cores and slices, and may be used to pare only. These parers all cut a thin peel, removing the entire skin without cutting away the flesh of the fruit. Price, No. 2, packed for shipment, \$1.75.



The Niagara Fruit Ladder

A ladder made from the best selected white basswood, with tie rods at every other step. A model for strength, lightness and durability. It always stands and never rocks, no matter how uneven the ground may be. Price, 30 cents per foot, 6 ft., 8 ft., 10 ft. and 12 ft. always carried in stock.



Fruit, Wine and Jelly Press. Three in one. Cleanest and best. The only one that separates juice, seeds and skins at one operation. For making fruit wines, jellies and fruit butters from grapes, strawberries, raspberries, blackberries, gooseberries, currants, quinces, pineapples, etc. The dryness of the pulp may be regulated by thumb screw at the outlet. Weight only 15 lbs. Special Price, complete, \$3.95.

Address GREEN'S NURSERY CO.

Service Dept.

Rochester, N. Y.

Little Stories of Facts About a Great Tree Growing Company

Little Snakes and Other Attractions in Florida.

Editor Green's Fruit Grower:—I have been much interested in such things, but I am a nature lover and read and think over things. By rights I should have been a farmer. I have taken your paper for at least twenty years and would not be without it. It is cheap for the valuable articles it contains. It is nineteen years since I first visited Florida, the winter before the so-called "big freeze" of 1895, and I saw the state in all its glory. There was not a frost that winter, blossoms bloomed everywhere, and the fruit crop was something wonderful.

We lived on a ten-acre grove producing all kinds of fruit that grow in that vicinity, Leesburg, Lake County, Florida. I did not come back the next winter, 1895, but the next 1896 I came again and such a change. It was a sad sight. Hundreds of people had gone north again. Leesburg was fairly depopulated and of course that was only one city of many. Eight years ago we came back to stay. We are on the long peninsula that lies between the Halifax river and Atlantic ocean. It is from one-half to three-quarters of a mile wide. Across the river is the beautiful city of Daytona, whose growth in the last ten years has been something wonderful, and it is still growing. Buildings are going up in all directions on both sides of the river. On one side are located north of us Daytona Beach, Sea Breeze and then Ormond.

This land is unlike any I have ever seen in this state. It is hill and valley from river to ocean, steep hills too. They remind me of the big waves at sea in a storm. They are in reality sand dunes that were formed by the sea in past ages. The soil is grey sand for about a foot or less and the subsoil is a reddish yellow, and seems to be very fertile as everything grows so rank. By a liberal use of lime at first or the planting of cow peas and turning them under, and then using about as much fertilizer as you would in the north, things grow wonderfully. There are young pines all around here. From my chamber windows I can look over the dunes and have a grand view of the ocean. It is like looking across an uneven lawn, but they are not long lived. There is such a luxuriant growth of oak, bay, and candlewood that is gradually crowding them out and the low branches are dead already.

Not far from here is what was once a ten acre orange grove, which is about the prettiest spot I ever saw. There are wide and narrow avenues in all directions, flanked on both sides by tall oaks and bay, long-leaved pines that do not grow anywhere else around here, weeping pines, tall sumac and lantana that grows six feet high. In the sunny places are big clumps of prickly pear that are sometimes covered with the yellow rose-shaped flowers. Last but not least is the plebian huckleberry. If we have rain and they ripen well, you can pull them off by the handful.

Snakes? Yes, there are always snakes where huckleberries grow, but who is afraid of snakes. They will always run unless you corner them. Rocky old Connecticut where I came from was noted for its rattlesnakes.

Our summers are lovely here, so near the ocean at least the beach cottages and hotels are full, and the bathing is just right. The tourist never sees the real beauty of this state because he does not come the right time of the year. You must live here the year around to rightly know it. I wish some of your flower loving friends could see my yard, front and back. Down to the edge of the woods, out in the road and across, are big plants of vinca, three kinds with blossoms as large as a silver dollar. They are a pretty sight. They seed themselves and take no care whatever.—Sara F. Gunn, Florida.

Planting Apple Trees.

The best time to plant apple trees is as soon as most of the leaves have fallen, which is generally about November. The roots being then in an active state, and the ground still retaining a certain amount of heat, they will form new roots before winter, which is a material advantage.

Worms For Sale.

One of the large industries of Nottingham, England, is the collection of earth worms for sale to fishermen, says the Boston Globe. English anglers have come to the conclusion that fish are fonder of worms that come from the soil of Nottingham than of any other kind of bait. Nottingham worms are for sale in every sportsman's shop in the British Isles. The industry provides work for a large number of men. A good gatherer can collect about 30,000 worms in a week and earn from \$15 to \$20 if he attends to business. The wholesale price ranges from 50 to 68 cents a thousand, according to the weather and the demand. The retail price is from 8 to 12 cents a hundred.

WHO'S WHO?—I refer not to men but to the higher grades of fruit, the better varieties. Perhaps you are not familiar with many varieties. There are over 2000 recorded varieties of apples grown in this country, but the average citizen is familiar with only three or four well known varieties. The way to become acquainted with varieties of fruits is to plant one tree each of a number of varieties. Plant these in a specimen row three or four feet apart and they will fruit there for ten or fifteen years, after which you can remove every other tree if necessary, but you will be surprised to learn how long they will remain in fruit if they are not crowded from either side. This is the way the varieties of fruits are tested at Green's Fruit Farm and nursery and this is the way we get the buds and scions for propagation so that we can be sure the varieties are true to name.

WHY DO WE LAUGH?

We laugh because we are suddenly pleased. If you are shown an amazingly large and beautiful peach or apple your first inclination will be to smile audibly. If you are suddenly thrown into the presence of a large number of these beautiful fruits in a way to surprise you, you will laugh without thought or intention. Such things please. A man never gets so old that he is not pleased with beautiful fruits and yet we must not forget that it is the children who have the greatest appreciation of fruit. This is one reason why we should have an abundant supply of fresh picked fruits upon the farm or the village lot. Here is one method of making home attractive for the girl and the boy, but at the same time it will add to the health and enjoyment of the father, mother and every member of the family.

DAVE'S DAUGHTER'S STRAWBERRIES.

I remember her well though it was years ago when she came to Green's Fruit Farm and nursery for strawberry plants for the planting of a large bed of strawberries on her father's farm. She was a beautiful girl. With her in the wagon as they drove up to my door were two girl friends who were visiting her. Next year this pretty girl came again to the farm to buy quart berry boxes and crates. She said that her little plantation of strawberries was yielding such an abundant crop of large fine fruit there was more than the family needed and she planned to sell the surplus to surrounding farmers and villagers. I have called the strawberry the poor man's berry for the reason that it bears fruit the quickest of any plant after planting and bears abundantly.

THE EXPOSITION.

We invite you to see our fruits in bearing and to see our nurseries. There are some difficulties in getting there for they are mainly located twelve miles southwest of Rochester where there are three large nursery farms. Six miles west of Rochester is a branch of our nursery. When you come to see our fruit in bearing the difficulty is that you may come a little too late and find the particular fruit you desire to see has been gathered and sold. But in the growing season you will always find something at Green's Fruit Farm and nursery to interest you.

We exhibit each year at the State Fair at Syracuse some of our many varieties of apples, plums, pears, and other fruits. This year we exhibited forty varieties in a tent at the Syracuse Fair. Six of our men were present at the Syracuse Fair as follows: Messrs. R. E. Burleigh, Supt. E. H. Burson, W. L. Glen, Supt. of the Rochester Office, M. H. Green, Dayton Smith and Edgar Smith.

PLANT THE GREEN BRAND OF TREES.

That is the trees propagated at Green's Fruit Farm and Nursery, where we have bearing trees from which to cut our scions, thus not only being sure of having the young trees true to name but thereby securing trees that will come into fruit earlier than where the scions are not from trees growing in nursery rows. Green's brand of trees is grown just far enough north to be hardy, healthy and vigorous, free from insect pests.

GREEN'S GRADE:—The name Green in connection with trees means quality. When you buy trees remember that grading in fruit or in cows or horses is important work and most important of all in the grading of trees. When you buy Green's trees you can rest assured you will get a good grade of trees, trees carefully grown, carefully protected, carefully packed, so as to safely endure long shipment.

NO ORDER IS TOO SMALL FOR OUR ATTENTION.

We are just as anxious to serve the patron who orders \$5 or \$10 worth of trees as we are the large fruit grower who orders a thousand dollars worth.

LOVE AND MARRIAGE.

When love and marriage come the second thought is a home. Where shall it be? If in the village or farm districts it must be large enough for having a fruit garden. Even though it be in the city it is possible to have a little collection of the various fruits such as peach, pear, plum, cherry and apple, also the grape. When the young people are talking over the subject of the future home just before the happy day arrives they should not forget the joys of the fruit garden.

Washington Irving, himself a bachelor, tells of visiting a young married man in the country. When they entered the house the bride was absent. They found her in the fruit garden picking red raspberries, which were as beautiful and full of blushes as the bride's cheeks. These berries were soon spread upon the table for the evening meal. What a happy picture this presents.

ONWARD WE STRIVE, UPWARD WE AIM, FORWARD WE GO.

Our striving has been to supply the best possible quality of trees at the lowest price at which they could be dug, packed and sold. Many a night has the writer lain awake planning how best to serve his patrons. Think of this in contrast with nurserymen who have no anxiety as to what shall happen to the trees they sell after they have received the money for them.

"AIM HIGHER, SHOOT FURTHER," HAS BEEN A SLOGAN OF GREEN'S NURSERY CO.

The digging and handling and storing and packing of fruit trees requires great care and constant and thoughtful attention. Trees are perishable. Without proper protection or attention trees lose a portion of their vitality and sometimes are utterly destroyed. Many growers of trees are careless or heedless or too lazy or indolent to give their trees proper care and attention. Some nurserymen do not care whether the trees succeed in the hands of their patrons or perish. The service we have given for 34 years warrants you in expecting trees full of vigor and vitality when you order of us.

A HAPPY TREE PLANTER.

Some years ago Mr. A. A. Halliday of Vermont sent us an order for apple and cherry trees. As he had previously been paying \$1.00 each for his trees, buying through tree agents, he hesitated about sending us his order as our prices were so much lower. When he received his box of trees and found them even better trees than he had been buying previously at \$1.00 each he told his neighbors about the purchase, telling them that here were trees that he had bought at 30 cents each which had previously cost him \$1.00 each. Since then Mr. Halliday has been a regular patron of Green's Nurseries. He writes us that after dealing with us for nearly twenty years he has only found one tree that was not correctly labeled and that turned out to be a McIntosh Red apple, one of the most valuable varieties for Vermont or any other northern locality.

READY MONEY IS WHAT MOST PEOPLE ARE LOOKING FOR.

How can the girl, the boy, the wife, or the head of the family get ready money? I answered this question when I left Rochester a poor man nearly forty years ago. I set out plants, vines and trees. My strawberries were the first thing to bring me ready money. Soon after followed the raspberries, blackberries, grapes, peaches, pears, plums and apples. There is nothing that brings ready money more successfully than fruit growing. There can be no doubt about the product of a company which has in thirty years built up the largest business of its kind in the world.

EXPRESS RATES ARE LOWER.

Here is something of interest to every buyer of fruit, vines, trees or other products. Heretofore express charges have been unduly high but now since the United States Government has intervened and offered such low rates by mail the express companies have been obliged to come down with their prices. Those who ordered plants and trees by express can now be assured of getting lower express rates than ever before in the history of this country. This places the product of Green's Nursery Co. almost at your doors.

PEDIGREED TREES:—We do not brag so about pedigreed trees as many nurserymen do in their advertising, but if anyone can claim to have pedigreed trees it is Green's Nursery Co. We have over 100 varieties of apples, therefore can go to bearing apple trees to get our buds and scions for propagation in the nursery. The same is true to a certain extent of our pear, plum, cherry and peach trees. We have at Green's Fruit Farm these trees in bearing so that you can go there in season and see the fruit upon the trees and pick and eat it. This gives us assurance that when we are budding or grafting we have the trees true to name.

WE TEACH PRICE ECONOMY AND QUALITY ECONOMY.

—We sell dependable plants and trees of high quality. Selling trees direct to the planter by mail, express or freight used to be considered new when our C. A. Green first began this method of selling. We are the pioneers in this branch of human industry. Gradually we have been gaining patrons until now we are the largest nursery in the world selling direct to patrons without the assistance of agents.

THE MEN BACK OF US.

Back of Green's Nursery Co. is an organization of men technically qualified not only to produce good plants, vines and trees, but who are qualified to dig, ship and pack those trees in the best possible manner. These are men who have made a specialty of this particular work and who have pursued it for many years so that now they excel in their work. It is such men as these whose services go continually in connection with every sale or shipment of both plants, vines or trees sent out by this Company. The knowledge and experience of these men is offered to you in the products which we are constantly placing before the public.

THE LURE OF THE COUNTRY TO RURAL LIFE IS HEALTH AND THE ENJOYMENT OF THE BEAUTIES OF NATURE.

—Yesterday, a beautiful day in late September, I visited Green's Fruit Farm and nursery and with the foreman rode about on the farms embracing over 300 acres. Many of the vines and trees now fruiting there have been planted by my own hands, therefore they are like my own children. You can imagine the pleasure I took in seeing these trees heavily laden with beautiful peaches, pears, apples, plums and quinces. The further we progress in fruit growing the further we are lured on to further achievements and experiments in fruit growing. Fruits adding to our health and well being are the lure of the country.

ASK THE MAN WHO PLANTS GREEN'S TREES.

When you drive along the highway and see a neat fruit garden filled with various kinds of fruit trees and vines, or a thrifty young orchard, stop and ask the owner of whom he purchased these trees or vines. Very likely you will find that he purchased the trees of Green's Nursery Co., of Rochester, N. Y. The fact is we have, to a certain extent at least, made Rochester, N. Y., famous by advertising the trees that we have grown there. The soil about Rochester is so favorable to the growth of healthy and enduring trees that the name Rochester has become famous the world over. There are no larger nurseries in the world than those at Rochester.

My pastor, motoring through Vermont, stopped to get a drink at a farmhouse on a secluded road. When the farmer learned that the traveler was from Rochester, N. Y., he was deeply interested and asked him if he knew C. A. Green. My pastor told him that C. A. Green was a member of his church and chairman of his board of trustees. Thereupon the Vermont farmer stated that he had been a patron of Green's Nursery Co. for many years and was glad to meet some one who knew C. A. Green.

TESTIMONIAL.

Montpelier, Pa., May 1, 1912.

Green's Nursery Co.:

I received my nursery stock yesterday. Everything is O. K. and in number one condition. They are certainly fine. Getting my goods from you people was a saving of about 65 per cent. (more than half) compared with the prices at which others are selling in our neighborhood. Many thanks for the extra strawberry plants. The fruit growing paper which you publish monthly is certainly a great help to people growing fruit and I think it is fine. Raymond E. Lytle.

Green's Nursery Company
ROCHESTER, N. Y.

B-U-S-T-E-D!

ROOFING LUMBER

Our Great FALL Announcement

You can order a complete carload of material including everything you need to construct a building and we will ship it forward to you without you paying us a cent down.

Lumber Prices S-m-a-s-h-e-d

Yes, we mean smashed. Absolutely busted to pieces. That's our policy. We quote prices on lumber that will positively save you big money. If you will send your lumber bill we will send you a freight paid estimate that will mean a saving to you of from 30% to 50%. Every stick is absolutely first class, brand new and fully up-to-grade such as you would buy from any reputable house in the United States.

We have determined that the Fall of 1913 is going to be the Banner Season in our great lumber department. We have on hand 20,000,000 feet of high-grade lumber suitable for the construction of buildings, no matter for what purpose intended. Come to our great yards in Chicago and let us show you this stuff actually in stock. No other concern in the world has a more complete stock of everything needed to build, whether Lumber, Shingles, Structural Iron, Plumbing, Heating, Doors or anything else that you may need. Do you know that lumber is getting scarcer and scarcer every year? Yet our prices are lower and will continue to fall as our stock is gone. **WRITE TODAY.**

Shingles at Big Saving

We have a special lot of 1,000,000 5 to 2 1/2 inch Clear Shingles on which we are making an exceptionally low price of \$2.99. Order by Lot No. M. S. 40.

This Door at 98c
Lot MS-39. Four panel painted door, size 2 ft. 6 in. x 6 ft. 6 in. 500 in stock. A high quality door for the price. This is only one of our many special bargains. Our grand Building Material Catalog and Bargain Sheets will show a full line of Inside Millwork of all kinds.

Free Building Book

A 20-page Book of Bargains in Millwork, Building Material of all kinds, including Paints, Plumbing, Heating, Structural Iron, Metal and Composition Roofing, Hardware, Carpenters' and Blacksmith's Tools, Wire Fencing. No prospective builder should be without it. It is free.

Smash Go WIRE and FENCE Prices

BARB WIRE Less Than 2c Per Rod

New galvanized, heavy weight barb wire, put up on reels about 100 lbs. to the reel. Lot 2-AD-28 per 100 lbs. \$1.85. Galvanized barb wire, light weight, first grade, best made, put up exactly 50 rods to reel, 2-point barb. Lot 2-AD-23, per reel, \$1.40.

Wire Nails, Per Keg, \$1.28

5,000 kegs, put up 100 lbs. to the keg mixed, all kinds to other regular nails, such as made by nail factories. Lot 2-AD-33, price per keg, \$1.28. 1,000 kegs of 10 penny weight regular wire nails, 100 lbs. to the keg, while they last. Write for our free Wire and Fence Catalog. Gives valuable information to any land owner. Fill in the coupon below.

Smooth Galvanized Wire Per 100 Lbs. \$1.13

It is suitable for fences, stay wires, grape vines or for any ordinary purpose where wire is used. This galvanized wire is irregular in length—it ranges anywhere from 50 to 50 ft. \$1.13 is our price for No. 9 gauge. Other sizes in proportion.

15c Per Rod Buys Heavy Hog Fencing

Here is another one of our remarkable bargains. A good heavy fence, bought from Ohio flooded factory, perfectly adapted for hog and general farm purposes, 28 in. high, square mesh, put up in suitable size rolls. Lot 2-AD-31, price per rod 15c. Other heights in proportion. Staples, 100 lbs., \$1.75.

BEST QUALITY READY MIXED PAINT

PREMIER, MICHAELSON House
Our paint department is under the personal supervision of Mr. V. Michaelson, for 30 years the foremost paint man in America. His picture has appeared on over 8,000,000 cans, and his name is known from coast to coast. Paint of quality is his specialty. Every gallon has our strongest guarantee. Our Ready Mixed Paint at 50c a gallon will outlast any similar paint produced. If you want quality paint, call or write to Mr. Michaelson. If you prefer, finest, most valuable paint book ever published sent FREE. Send coupon.

Fill in This Coupon

HARRIS BROTHERS CO., Dept. S.L. 3 Chicago
Send me free of cost the following catalogs. (Place an X mark in square opposite the catalogs you desire)
☐ Catalog of 50,000 Bargains ☐ Building Material
☐ Plan Book of Houses & Barns ☐ Roofing, Siding and Ceiling
☐ Wire and Fencing ☐ Plumbing & Heating ☐ Paint

My Name is _____
My Address is _____
County _____ State _____
R.R. _____ P.O. _____

PRICES No Money Down

You can buy a carload of Building Material from us without paying us one cent in advance. All we want to know is that the money will be paid us as soon as the material is received, unloaded and checked up. Our terms are more liberal than anyone else offers.

CHICAGO HOUSE WRECKING CO.

Now operated under the name of

HARRIS BROTHERS COMPANY

FOR twenty years the CHICAGO HOUSE WRECKING COMPANY has been well and favorably known to the public. During all these years the four Harris Brothers have been the executive officers and owners and for that reason have finally decided to operate under the name of HARRIS BROTHERS COMPANY.
There is no change in our business, except that in the future the four Harris Brothers will advertise and sell their goods, heretofore advertised and sold under the name of the CHICAGO HOUSE WRECKING COMPANY, under the new name of HARRIS BROTHERS COMPANY.

Why We are Called the Great Price Wreckers

Consider what becomes of the stock of goods, when a manufacturer or big retail merchant goes bankrupt or "busted" as the saying goes. It is estimated that about ten thousand merchants annually meet with business disaster—this is why our company exists. If the stocks are sufficiently large and the goods are new and desirable, they find their natural way to our great forty acre plant for distribution at a small added profit to our thousands of customers, who in this way get the benefit of wonderful bargains. In many cases our prices do not even represent the original cost of production. We stand foremost in our line. We recognize no competition. That's why we are called "THE GREAT PRICE WRECKERS."

Our Ending Guarantee

We guarantee absolute and complete satisfaction. There is no half way about this guarantee. Every purchase you make from us will be exactly as represented and you will be satisfied in every way, or we will make such just amends as are within our power. We will take back any unsatisfactory article at our freight expense both ways and refund your purchase price. We refer to our responsibility to the publisher of this or any other publication or any bank or express company and to the public at large.

We Sell Practically Everything

Our stock includes practically "everything under the sun." It's in truth, from a needle to a locomotive. No matter what your vocation, or what position in life you occupy, or what your business, or how great a merchant you are, you have use for us, and we have the goods that you can buy from us to a decided advantage. The quicker you learn to recognize this fact, the sooner you will be "putting money in your pocket."

Our stock includes Building Material, Lumber, Roofing, Sash, Doors, Millwork, Wire and Fencing, Hardware, Plumbing Material, Heating Apparatus and Supplies, Furniture, Household Goods, Rugs, Stoves and everything needed to furnish or equip your home, your club or hotel. It includes Groceries, Clothing, Dry Goods, Boots and Shoes, Furnishing Goods and every single article to clothe a man, woman or child. It includes Sporting Goods, Fishing Tackle, Hunting Outfits, Tents, Guns, Harness and Vehicles, Jewelry, Sewing Machines, Clocks; also structural iron needed in construction of buildings, bridges, etc. Machinery, gasolene, gas and electric power outfits. In fact you cannot think of a single manufactured article that we cannot supply you at a saving in price. Let us convince you—it means but little effort on your part to prove the truth of all we say. Write us to-day for our Catalogue and literature. Fill in the coupon shown below.

THE GREAT PRICE WRECKERS

Freight Paid Prices

Send Us Today Your Complete List of Lumber and Building Materials for Our FREIGHT PAID PRICES.

\$8.50 for a High-Grade, Sanitary, Complete Closet

Syphon acting, vitreous bowl, hardwood seat and cover. Low down, latest style, copper lined tank. Outfit is Lot 5-AD-105.

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The lightest, strongest and most compact Gasoline Engine ever produced. Thirty days' free trial. It is 4-cycle, self-contained, horizontal, hopper cooled; on heavy wood skids, with battery box, shipped complete, wt. 220 lbs. Has automatic governor. Easy to start. Send for Special Gasoline Engine Catalog.

Kitchen Cabinet \$17.35

Good from pipe in random lengths complete with couplings, suitable for gas, oil, water and conveyance of all liquids; size 2-8 to 12 inches; our price on 1-in. per foot \$1.14 each at 4c per foot. Complete stock of valves and fittings. Send us your specifications.

\$13 Buys Complete BATHTUB

This is a white enameled, cast iron, one-piece, heavy roll rim bathtub, fitted with the latest style nickel-plated trimmings, including full double door, for hot and cold water, nickel-plated, connected waste and overflow, and nickel-plated supply pipes. It is 6 ft. long and is good enough to answer the needs of any man. Lot 5-AD-101.

Hot Water Heating Plants

We are headquarters for steam, hot water and warm air heating plants. They are suitable either for single or multiple units. We can install one of these plants in your old building. For this great fall sale of ours we are offering a warm air heating plant large enough for the ordinary 6 room house, with all necessary plans and complete instructions for installing, for \$45.00.

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Good from pipe in random lengths complete with couplings, suitable for gas, oil, water and conveyance of all liquids; size 2-8 to 12 inches; our price on 1-in. per foot \$1.14 each at 4c per foot. Complete stock of valves and fittings. Send us your specifications.

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We are the originators of a system of selling practically complete Houses direct to the consumer, at a great saving. We eliminate all in-between profits. We sell and ship direct to you from our own stocks. Great care and study has been given all our Plans. Economy is the watch-word both in materials and construction.

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Our Book of Plans contains 120 Designs of different kinds of buildings. Everything from a 2 room Portable House for \$17.50 to the finest kind of a 10 room residence. Houses are completely illustrated showing the floor plans, prices, etc. And it's free.

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Galvanized Steel Roofing is Fire, Water and Lightning Proof

We bought 20,000 squares of this Corrugated Iron Roofing, which we offer at this remarkably low price. It is new, perfect, and first-class, but light weight. The sheets are 22x24 in. x 1/4 in. corrugated. Our price of \$1.25 per sq. is f.o.b. cars Chicago. When ordering this item, specify Lot No. AD-701. This is not galvanized, but black steel roofing.

\$1.25

per 100 sq. ft. buys best steel roofing

Write us today for our special FREIGHT PREPAID PRICES on new, galvanized roofing. We are offering prices lower than ever before offered in the roofing business. Galvanized roofing at \$2.35 per square and up. Ask for free samples.

62 CENTS PER 108 SQUARE FEET BUYS BEST RUBBER SURFACE "AJAX" ROOFING

Here again we show the lowest price ever known for roofing of quality. This smooth surfaced roofing we are offering is our one-only "Ajax" brand—and the price includes necessary cement and caps to lay it; this price is f.o.b. Chicago; at 60c per square, we pay the freight in full to any point East of Kansas and Nebraska and North of the Ohio River, provided your order is for at least 3 squares. Prices to other points on application. Roofing is guaranteed to wear as long and give as good service as any Ready Rubber Surfaced Roofing on the market. It is put up in rolls of 108 square feet, and contains 3 to 4 pieces to the roll.

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